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OVERSIGHT OF CIVIL AERONAUTICS BOARD PRACTICES AND PROCEDURES

COMMITTEE ON THE JUDICIARY
HEARINGS
BEFORE THE
SUBCOMMITTEE ON
ADMINISTRATIVE PRACTICE AND PROCEDURE
OF THE
COMMITTEE ON THE JUDICIARY
UNITED STATES SENATE
NINETY-FOURTH CONGRESS
FIRST SESSION
ON
OVERSIGHT OF CIVIL AERONAUTICS BOARD
PRACTICES AND PROCEDURES

VOLUME 1

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OVERVIEW OF FEDERAL ECONOMIC REGULATION OF DOMESTIC AIR TRANSPORT

THURSDAY, FEBRUARY 6, 1975

U.S. SENATE,
SUBCOMMITTEE ON ADMINISTRATIVE
PRACTICE AND PROCEDURE OF THE
COMMITTEE ON THE JUDICIARY,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10:20 a.m., in room 2228, Dirksen Office Building, Senator Edward M. Kennedy (chairman of the subcommittee) presiding.

Present: Senator Kennedy.

Also present: Stephen Breyer, special counsel; Philip Bakes, assistant counsel; Thomas M. Susman, chief counsel; and Lewis Beasley, assistant to Senator Thurmond.

Senator KENNEDY. The subcommittee will come to order.

OPENING STATEMENT OF SENATOR KENNEDY

The Senate Subcommittee on Administrative Practice and Procedure is today continuing the examination it began last November of the procedures and practices of the Civil Aeronautics Board. The subcommittee has scheduled 7 days of hearings this winter to look into the CAB's activities relating to rates, entry, enforcement, and antitrust.

Federal regulation of transportation began in the 1880's with two objectives: First, to protect the consumer from concentrations of economic power, and second, to guarantee that essential transportation would be available to all Americans. But regulation has gone astray. What may have been good for the last quarter of the 19th century is a disaster for the last quarter of the 20th century. Either because they have become captives of regulated industries or captains of outmoded administrative agencies, regulators all too often encourage or approve unreasonably high prices, inadequate service, and anticompetitive behavior. The cost of this regulation is always passed on to the consumer. And that cost is astronomical.

In the transportation area alone, studies have estimated the cost to the public of Federal regulation to be \$8 to \$16 billion each year. That is an unreasonable price at any time. It is wholly unacceptable under our present economic conditions.

President Ford is asking the American people to absorb billions of dollars in additional living costs to alleviate our energy problems. At the same time, he is asking Congress to freeze or reduce spending on social programs designed to ease the financial burden on those least able to cope with recession and inflation. The President is predicting a frightening unemployment rate of over 8 percent to continue during the next several years.

Americans are being asked to make these harsh and difficult sacrifices. Many of these sacrifices cannot be justified on their own; but they stand in even starker contrast with the continuing drain on our economy that regulatory agencies impose.

The direct effects of regulation by the Civil Aeronautics Board are translated into the prices the public pays to get from one city to another—whether for business, pleasure, or family emergencies. Some critics have estimated that as a direct result of CAB regulation the public pays from 32 to 47 percent in excess air fares. These inflated costs are passed on to the consumer by the sellers of goods and services who must utilize the airplane to transport its products and employees. CAB economic regulation is thus of vital concern to every American. Although the way the CAB regulates may be complex, the effects of that regulation are dramatic and clear.

The administration has asked Congress to create a commission to study regulatory reform. While I support that proposal, I also believe that the President and the Congress have a duty to propose something concrete to bring about reform.

Throughout our hearings we will be asking two questions about the CAB's practices and procedures: First, are they effective? Do they result in reasonably priced air transportation for the consumer and reasonable incentives for the airlines to provide that service? Second, are they fair? Do they give the public, as well as the airlines, an adequate opportunity to present their points of view before important decisions are made?

Last November the subcommittee began this process by examining the CAB's decision to set minimum charter rates. We concluded that in this instance the decisionmaking process operated neither fairly nor effectively. The CAB's actions in this area will unjustifiably add millions of dollars to the public's bill for air travel. Subsequently, the Court of Appeals for the District of Columbia issued an indefinite stay of the CAB's minimum charter rate policy.

Today, we will begin with a broad overview of CAB policies and procedures. Next week we will examine the fares and service provided by intrastate carriers, and the performance of State regulations of airlines who are not regulated by the CAB. We will ask why State-regulated airlines in California and Texas provide profitable, unsubsidized service at fares that are sometimes 50 percent lower than those charged by the CAB-regulated carriers. We want to know the reasons for these differences. The subcommittee will ask whether, as is so often charged, regulation by the CAB is responsible for them.

We will go on to review the Board's procedures for determining proper rates. In the past 14 months, the Board has granted direct fare increases of over 16 percent. It has eliminated special fares for children and vacationers, producing an average fare increase of more than 20 percent. Neither inflation nor rising fuel costs can fully explain these fare increases.

So again we must ask, is CAB regulation responsible? Do the Board's procedures ensure that low airline profits lead to quick, automatic, fare increases, while high airline profits are neither quickly nor automatically translated into fare cuts? Do its ratemaking procedures reward the inefficient, unprofitable carriers with industrywide fare

increases that efficient carriers do not need and would not impose in a competitive environment? Do the Board's procedures work to produce rates based on, in the words of the Federal Aviation Act of 1958, the "lowest cost consistent with the furnishing of adequate service"? More fundamentally, if the task of regulating air fares is so inherently complex that imperfections and higher costs will result no matter what ratemaking procedures are used, then we will ask to what extent reform can be accomplished by returning the determination of prices to the marketplace and the laws of supply and demand.

The subcommittee will also analyze the Board's procedures for awarding routes. It has been claimed that a more flexible entry policy—a policy that more freely awarded routes to qualified applicants—would itself help keep prices low. The fear of attracting competition may also act as an additional constraint on airline pricing policies. Yet the CAB has adopted precisely the opposite approach in recent years. But, it has never decided to adopt this policy formally, as required by the Administrative Procedure Act. The subcommittee will examine the Board's past behavior, as well as its recently announced proposals for procedural change, to determine whether both the public and the industry are being adequately served by Board actions.

The subcommittee will also look at the CAB's use of its enforcement powers. We will ask whether the agency has devoted disproportionate resources to stamping out low-fare transportation charters—air travel clubs that put pleasure travel within the reach of millions of average citizens—while doing little, if anything, about airline overcharge.

Finally, the subcommittee will look at the Board's use of its power to grant antitrust exemption to several carriers who reached agreements to curtail service competition in selected markets. Has the Board imposed safeguards sufficient to assure that the public will not suffer unnecessary curtailment of service? Have the reduced costs of the carriers who have curtailed service been passed on to those consumers who now receive that reduced service? Does the CAB too easily ignore the policies of the antitrust laws, allowing the airlines to engage in collusive action to divide up markets and profits?

The scope of these hearings is broad and our time is limited. But we have been substantially aided by the cooperation of the airlines, several executive agencies, and the CAB itself. Even before these hearings were announced last December, the airlines and the CAB were compiling data and submitting responses to detailed and extensive questionnaires from the subcommittee. Some of our questions asked for data and analyses that neither the CAB nor the airlines had previously compiled.

The responses have been immeasurably helpful to the subcommittee. The Board, executive agencies, and the airlines have had an opportunity to reexamine their own assumptions in preparing for these hearings. Just last week, I am happy to report, the Board itself announced that it was establishing an internal study group to reexamine its functions and the need for regulation. I hope that study group will pay close attention to the evidence we will be developing in these hearings. The subcommittee will certainly monitor the progress of the group's work and will closely study its final report.

The Department of Transportation, the Department of Justice, the President's Council of Economic Advisers, and the Council on Wage

and Price Stability have lent substantial assistance to our efforts. They have developed concrete proposals for reform that will be explained by them during the course of these hearings.

Today, we will hear from several government agencies, some experts on economic regulation, and representatives of the scheduled airline industry. These witnesses have been asked to tell us whether there is a need for reform and to suggest the direction reform should take. Thus, today's hearing will provide an overview of the major problems involved in airline regulation. Proposals for reform will be set before the public by various witnesses, and these proposals will provide a framework for the examination that will continue more specifically in the future hearings this month and next.

Our first witness this morning is Mr. John Barnum, who came to Washington from his New York law practice in 1971 to become General Counsel of the Department of Transportation. In 1973, he assumed the job of Deputy Secretary of Transportation and is presently Acting Secretary of Transportation.

As I indicated in my opening statement, the DOT, both Mr. Barnum and Mr. Binder, have been extremely helpful to us in preparing for these hearings.

We are pleased to have you with us and we look forward to your testimony this morning.

STATEMENT OF JOHN W. BARNUM, ACTING SECRETARY OF TRANSPORTATION, ACCOMPANIED BY WILLIAM A. KUTZKE, OFFICE OF THE GENERAL COUNSEL, DEPARTMENT OF TRANSPORTATION

Mr. BARNUM. Thank you, Mr. Chairman, and thank you for the kind words concerning Assistant Secretary Binder and Assistant Secretary Snow, who are not available at this time.

I would like to introduce William A. Kutzke who has been on the firing line for the DOT in the CAB proceedings in which the Department participates.

I would also thank you for your invitation to present the views of the Administration on the important subject of regulation of air transportation and how it can be improved.

The Department is vitally interested in the issue. Since DOT's inception in 1967, we have participated in many proceedings before the Civil Aeronautic Board. In our Board filings, the Department has been a strong advocate of improving the economic performance of air transportation through increased reliance on competitive market forces. The unifying theme that runs through virtually all of our filings before the CAB is that greater reliance on competitive market forces will improve the economic performance of the industry and result in lower, more cost related rates, will reduce excess capacity, and will provide the air traveling public with a wider and more desirable range of service and price options.

I believe we are now at a regulatory watershed. For the past several months, the Administration has been reviewing the transportation regulatory system with a view to improving both performance and economic efficiency. The reform proposals presently being prepared by the Administration mark a major departure from the regulatory regime we have relied upon in the past. The Administration will

submit to Congress in the near future a proposal which will fundamentally redirect our air transportation regulatory policy. Your hearings, therefore, come at an opportune moment. Today I will outline the Administration's position on regulation of air transportation.

The need for an air regulatory reform act is demonstrated both by economic research and by our experience. At present, for example, air carriers, shippers, and passengers frequently face a web of restrictive government regulations which stifle competition, discourage innovation, and foster inefficiency. In many respects, the present air regulatory structure is outdated, inequitable, inefficient, uneconomical, and sadly irrational. It often misplaces incentive and disincentive, disorients competitive advantage, protects inefficient carriers from effective competition, over-restricts market entry, artificially inflates rates and misallocates our Nation's resources. Under the current system, many consumers pay an artificially inflated price for air transportation because rate setting, unnecessary entry restriction, capacity agreements and other forms of shelter from competition sanctioned by the Board protect the least efficient carriers, permit rates substantially above an efficient cost level and distort competitive market forces. The resulting economic waste and associated inefficiency is substantial.

The present air regulatory system is the product of a different era. While the needs and conditions on which air regulation was first predicted some 40 years ago have changed, the goals and practices of government regulation have not. It is unfortunately a truism that regulation begets further regulation and that regulations outlive their rationale.

I fully agree with the statements you made in your opening remarks that regulatory practices developed 40 years ago are not suitable to the last quarter of this century.

In 1938, when the Civil Aeronautics Act was passed, government assistance through protection, subsidy, promotion, and regulation was a necessary factor in the development of a new and struggling industry. Thirty-seven years later, conditions have changed. The air travel market is mature. Traffic has grown. Growth has led to stability. The industry is vigorous. But this regulatory system which protected it and made it that way has not kept pace.

The problems once faced have been largely solved. Now we are faced with problems that are a by-product of that success. The promotion which once fostered growth now causes inefficiency. The restrictions which once guaranteed stability now retard competition. The regulatory protection which once insured existence now prevents savings.

We need a better system which comes closer to producing optimum social and economic results, one which maximizes efficiency, economies, and consumer options and which produces the best mix between low cost and high quality service.

CAB'S FIRST MAJOR POWER: FARES

The most pressing problems in the airline regulatory field cluster in three broad areas—ratemaking and pricing flexibility, market entry and exit, and anticompetitive agreements. Each area is in need of reform. Let me identify what we see as the future direction which the Administration suggests.

A major difficulty with CAB policy has been ratemaking and the carrier inability to raise and lower rates in response to the demands of the marketplace. This in turn forces carriers into costly and uneconomic service competition, deprives the traveling public of the range of price and service options which would otherwise be available, and results in substantial economic waste and inefficiency.

Section 404 of the Federal Aviation Act requires carriers to establish just and reasonable rates. Section 1002 permits the Board to prescribe maximum or minimum rates if it is of the opinion that the rates charged are unjust, unreasonable, preferential, or discriminatory. In deciding whether a rate is too high or low the Board takes into account, among other factors, whether the rate is compensatory, providing the carrier with sufficient revenue.

The result of the Board administration of these sections has been the elimination of price competition, thereby restricting competition to service. Passengers find airlines competing for their patronage through elaborate cuisines, free drinks, attractive stewardesses, multi-colored planes, and piano bars. But they do not have a menu where different quality service is related to different prices. This is a serious loss.

Many passengers would prefer the opportunity to select carriers based on price in addition to type of service. Some passengers would prefer high-load factor, low-frill, low-fare service. Others are willing to pay for more comfortable and more costly service. Present procedures do not produce that variety of price and service options. Often, present regulation causes fares well above those which would occur in a more competitive air transportation market. With prices fixed at levels above market rates, carriers compete on the basis of service. Such service competition produces substantial unused capacity and unnecessarily low-load factors, presently averaging about 57 percent in the domestic market. In the transcontinental market, for example, rates are set sufficiently high to permit the carriers to earn a reasonable return with load factors in the mid-40-percent range. DOT believes that many transcontinental passengers would prefer the minor inconveniences associated with higher load factors in return for less expensive tickets. In a more competitive market, carriers would respond by providing such low-cost service.

One recent study showed that, at an average load factor of 75 percent, prices could be 27 percent lower than at a 50-percent load factor. While 75-percent load factors are unrealistic in most markets, this example illustrates the potential savings associated with pricing flexibility.

"ZONE OF REASONABLENESS" FOR FARES

Present Board policies encourage lower than optimal load factors. DOT's testimony in the CAB's Domestic Passenger Fare Investigation showed that when load factors increase beyond a break-even level (defined to include profits), carriers schedule additional capacity, thereby lowering load factors to the break-even level again.

Because of this inflexibility, in the Domestic Passenger Fare Investigation, DOT, among other things, urged the Board to establish a 15-percent "zone of reasonableness" above and below the fare structure curve. The zone would not apply in monopoly markets, as defined by

the CAB, where the Board would continue to review and suspend rates. Within the zone, carriers would be permitted to compete on the basis of price, free from regulatory interference. Outside the zone, the Board could continue to suspend rates it believed unlawful under its ratemaking standards.

Senator KENNEDY. Why wouldn't some of the stronger official carriers just lower their rates until they drive the competition out?

Mr. BARNUM. That might be the result if you didn't simultaneously make a change with respect to your entry. If you do make the concomitant change in entry, in the event you suggest another carrier would come into that market, when rates rise above a competitive level.

Senator KENNEDY. But how can a carrier come back in? I would think it would take a very considerable amount of investment, and once they get right back in, the fare could be lowered again to drive them out. I would think the people would bet the idea pretty quickly after two or three people lose their shirts.

Mr. BARNUM. Many of the markets you are talking about are markets that could be served or not served by existing carriers.

The easy case, of course, is a market in which a carrier serves both end points anyway, let's say New York-Cincinnati. TWA may be serving Cincinnati from Chicago, and New York from a number of places. It drops the New York-Cincinnati leg for one reason or another, or perhaps it is not now in the New York-Cincinnati leg. But if other carriers were to raise fares as you suggest, TWA would promptly go right back into the New York-Cincinnati market. That is the easy case.

The more difficult case would be a market where a carrier did not have a base at one of the end points.

In any event, you must have a different practice with respect to entry in order to make rate flexibility meaningful and to avoid the very result you are talking about.

Senator KENNEDY. How do you know they just wouldn't go ahead and charge the ceiling, too. Perhaps if one carrier found out that another is going up to the ceiling, the first carrier would say, well, since Airline X is charging the ceiling and getting a good return on investment, I think we will, too, and then we would end up having the same kind of competition that you have outlined earlier?

Mr. BARNUM. Well, I think you would find there would be a number of carriers that would charge a higher rate at those times of the day; for example, where there is such a demand that they can get it.

But what we would like to see happen is illustrated in the hypothetical case of Chicago-Los Angeles. It may be that the 6 p.m. flight would find a rate toward the high end of the zone because there is high demand for it, there are a lot of people that want to fly at that time, and indeed the major carriers, the trunkline carriers, might charge the same rate at the high end of the scale. But price flexibility would permit them to charge a lower rate during the middle of the day when they could attract people to use planes now operating with a lower load factor, such as the 2 p.m. flight, when there is not such a great demand. You could get price flexibility which would spread out the demands of the airline and increase the load factor, which is what we are really shooting at.

The limits of the zone we proposed in DPFI ensure that neither dramatic price increases nor destructive price competition would ensue. The Department position rested on the premise that greater reliance on market forces would result in the establishment of rates based on costs and would afford the public a wider and better range of price and service options. We emphasize that the lack of price competition in the air industry was the primary cause of "seat wars" and other service competition which resulted in undue unused capacity and inflated cost levels.

In its Domestic Passenger Fare Investigation decision, the Board did recognize that fares should be more closely aligned to costs. It largely adopted our conclusion that low fares for short-haul passengers should not be subsidized by higher fares for long-haul passengers.

SMALL TOWN SERVICE (CROSS-SUBSIDY)

Senator KENNEDY. Well, now, I come from a part of the country where we had up to—well, the last 8 or 9 years we had service into a number of smaller communities in Massachusetts. We had air service into New Bedford, Worcester, Springfield, down in Hyannis, and of course that was replicated in a variety of different smaller communities all over northern New England.

As you are probably aware, Northeast flew in New England and then they got their ticket to go down to Miami and they primarily focused on that, and they claimed at least to use cross subsidy. They abandoned New England routes. I think there is one flight a day in through Hyannis and the Islands, and the smaller airlines have taken over, and let me say quite frankly they have been very good, at least in our part of the country, at least in the areas of New England in which I have traveled.

But if you reject the cross-subsidy argument aren't you just saying that you are virtually abandoning some of these smaller communities, that maybe they will, as took place down on Cape Cod, with Down-East Air Lines or Pilgrim Air Lines that fly out to Provincetown; aren't you really saying to smaller communities—and I am sure this is true in other parts of the country—you fellows are on your own. If there is an enterprising smaller company that can put together the financing and find the pilots and all the rest, maybe you will get good service, but otherwise you are on your own. Aren't you telling that to hundreds of smaller communities all over the country by this suggestion?

Mr. BARNUM. I think not. I think we should avoid confusing a number of the subelements of the cross-subsidy question.

The principal issue addressed by the Board in the Domestic Passenger Fare Investigation proceeding I am talking about came up in the context of fare construction and the way in which an airline should build up its fares related to its cost: A certain amount to ticket the passenger; a certain amount per mile for the first 500 miles; and a decreasing amount for further miles.

We felt at that time the long-haul passenger was subsidizing the short-haul passenger. For example, because the passenger going from New York to San Francisco had very few other ways in which to take that trip, the airlines were able to charge him a higher fare relative

to cost than they were in the situation, say, from Boston to New York, where there were alternative means of transportation and where the air carrier had to take into account the fares of Amtrak and of inner-city buses. Because of the intermodal competition, the shorter haul fares were lower and, to a degree, we felt, cost-subsidized by the long hauls. That is just an economic analysis of what it costs the air carrier to operate long haul and short haul. That is the cross subsidization that we objected to, and the CAB objected to, in Phase 9 of the Domestic Passenger Fare Investigation.

I think that position is entirely appropriate and I don't think your question was really criticizing that kind of position on cross-subsidization. So I would like to put that aside for a minute.

I would also like to put aside the problem created by seasonal demands. When you talk about the Islands and Cape Cod—and I fly those same flights myself—you are talking about a seasonal demand, and that obviously presents a separate problem.

But let's talk now about the smaller communities that are in jeopardy of not getting continued service, if that service is not economic and cannot be cross-subsidized by the profitable routes that the carrier services. Now, of course, there is at the present time a local subsidy operation available to the CAB. It is exercised now at the level of about \$68 million last year and about \$66 million in the forthcoming budget. By and large, local subsidies have been going down, relatively, as inflation has come along.

To the extent that a trunk line cannot economically serve a smaller community, we do not think it should be required to continue to provide that service. In the last 5 years, we have seen a dramatic substitution of second level service for some of the trunkline service that previously existed. The very region of the country you are talking about is a dramatic example of that. Allegheny has provided substituted service in a number of cities that it previously served or that Mohawk served prior to the Allegheny-Mohawk merger. New England speaks very well to the point that many carriers in a less regulated climate would be prepared to come in and provide the service that you are talking about.

The specific proceeding before the CAB on New England service laid out a good record where service could be provided by trunk carriers and secondary carriers, and it also gave you some evidence that intercity passenger services such as buses were available to get people from Bangor to New York or Bangor to Boston and there was not the need for certificated air service as existed in some other parts of the country.

I agree with you that it is something we have to keep our eye on, but I don't believe you should permit cross-subsidy as the answer.

Would you like me to pursue that?

Senator KENNEDY. Why don't you continue. We will come back to this.

DESTRUCTIVE COMPETITION

Mr. BARNUM. The Board was unwilling at that time, however, to adopt the broader principle of pricing flexibility, constrained only by costs.

Senator KENNEDY. In reaching this position you must have done some work or some studies that would give you some assurances that you wouldn't have cutthroat competition in this kind of thing and drive people out of the market. Have you studied this in reaching this decision on pricing flexibility and expediting decisionmaking? What about cutthroat competition that would destroy the competition basically? You are satisfied that that won't be the case?

Mr. BARNUM. We are. We did do just that examination and we submitted some of that evidence in Phase 9 in the Domestic Passenger Fare Investigation.

I think if you combine this with easier entry provisions, you would not get the cutthroat competition to drive competitors out. We are not talking about requiring the CAB to permit destructive price competition. If you will permit greater flexibility entry, you will get threshold pricing in these markets so that the carriers who are in these markets will price at a level just high enough to discourage the other carriers able to come in from coming in because the very startup costs will prevent them from coming in and making it—

Senator KENNEDY. You think that this threshold cost is the most effective cost for the consumer?

Mr. BARNUM. That has got to be the most effective cost to the consumer; yes.

Now, there has to be a basic cost element in here that, of course, we in the Department of Transportation are always mindful of. We are not just talking about selling oranges. We are talking about selling air transportation. There has to be a very basic and substantial cost here for safety. We are mindful, as I am sure you are, of the ingredients of operating an airline. We are not in any way inviting you to open up the pricing of transportation so that safety would be derogated.

Another procedural problem associated with pricing is CAB delay in deciding whether rates are reasonable.

SAFETY AND COMPETITION

Senator KENNEDY. Have you got any study about the performance of new carriers in the area of competition on the basis of safety? Have you drawn any conclusion or made any study of how much of an issue that would be or whether that is a question to be resolved?

Mr. BARNUM. It hasn't been an issue among trunk carriers because there haven't been any new trunk carriers. It is an issue when we talk about air taxis, and this is a very serious problem. I am afraid our record of accidents of air taxis is not as good as we would like. A lot of these people are starting up and do not have all the elaborate safety practices and manuals the trunk carriers have been able to develop over the years.

Senator KENNEDY. What about intrastate carriers, in terms of safety. Isn't that a problem?

Mr. BARNUM. I think the safety record of the principal intrastate carriers is excellent.

Senator KENNEDY. But how will you make sure that is going to be the case in other places?

Mr. BARNUM. Well, of course, the FAA has broad authority with both certification of types of aircraft and maintaining the operating

status of aircraft. That is really more an FAA function. It would address itself to any type of aircraft being operated. I agree with you, however, that it is something we should continue to keep our eye on, but given that mandate to the FAA, I think we can put it to one side.

Mr. BARNUM. I made reference to the CAB and its procedural delay in deciding whether rates are reasonable. We believe the CAB should be required to render a final decision on rate proposals promptly. Also, streamlined procedures should enable the Board to dispose of some cases on the basis of pleadings alone, without formal hearings. Large-scale investigations such as the DPFI may take longer, of course.

The Administration strongly supports greater pricing flexibility for the airline industry. We expect that our legislation will incorporate proposals for pricing flexibility and expedited decisionmaking.

CAB'S SECOND MAJOR POWER: INDUSTRY ENTRY AND ROUTE ENTRY

Another major problem with the present regulatory system is the Board's restrictive entry and exit policies. These policies have also restricted competition and increased costs to consumers.

Section 401 of the Federal Aviation Act gives the CAB control over entry into the industry; the Board is given authority to determine which carriers may operate in scheduled interstate service and on which routes they may operate. The applicant must be found fit, willing, and able to perform the service properly, and the transportation must be required by public convenience and necessity. CAB permission is also required for exit.

In practice, industry entry has been tightly controlled. Other than the 16 carriers operating when the 1938 act took effect, there has not been a single new trunk carrier certificated in the Board's history. Through merger, the 16 original trunks have shrunk in number to 10 which account for 90 percent of the total domestic market. The Board has, however, certified local service carriers, some of which are now as large as the smaller trunks.

Until recently, and especially in the late sixties, existing carriers were granted applications for new routes, thereby substantially reducing the number of monopoly markets. In the last few years, however, the CAB has put into effect a de facto moratorium on route awards. New route applications have not been set for hearing; processing applications which had been set for hearing has been delayed. The restrictive policy with respect to new carrier entry into the industry has now been matched by a restrictive policy with respect to new route entry for established carriers.

The economic result of a restrictive CAB policy is that carriers do not enter and leave markets solely for business and profit reasons. New firms are discouraged by the standards applied and by the results they see, including the high cost of the application process and the delay in Board decisionmaking. The Board has protected incumbent carriers rather than encouraged healthy competition. As a result, in the majority of trunk markets, most passengers are carried by only one or two airlines.

The administration does not necessarily believe that additional carriers are required on every route to improve the working of the air

transportation system. We do believe, however, that the present system removes the ability of the carriers to adjust services and realine the markets they serve as economic conditions warrant. This results in increased costs to the public.

The present system also does not recognize the importance of potential competition as an economic force. Thus, the carriers on an existing route need not be concerned about new competition unless the Board has a route case pending. In such circumstances, the existing carriers may be less diligent in providing the type of service and price and quality options desired by the public than they would be if they were aware that a competitor could enter at any time to provide new or better service.

CAB'S CHARTER RESTRICTIONS

Another way of improving competition is by liberalizing charter rules and thereby offering the consumer a broader range of price and service options.

Senator KENNEDY. Is your view consistent with the minimum charter floor the DOT was pushing last year?

Mr. BARNUM. I would like to clarify the minimum charter floor. I believe that as a result of the hearings you held in November, efforts were made to portray as much controversy within the administration as possible, and there was a good deal of confusion.

I think that what we were saying—

Senator KENNEDY. Well, we are glad to get the real story, now.

Mr. BARNUM. At that time we were talking in the context of Administration's seven point action plan that was directed to the international flag carriers. It dealt with the ways in which we could improve the economic climate and practices of Pan Am and TWA and those international carriers that were suffering from the economic circumstances of a flat or decreasing international market and huge fuel cost increases. We did consider among other things, the relationship between scheduled fares on the North Atlantic and charter fares. At that time there was still debate as to what the scheduled fares should be, and IATA had not yet come in with a total package for CAB approval. It was difficult for IATA to come in with a package for scheduled fares because they did not have any idea where charter fares would be.

We thought that to aid IATA agreement or at least to facilitate informed decision by the scheduled carriers, it would be useful if there were from the CAB some indication of criteria for a floor, if you will, at which charters would operate.

Now, what has been misunderstood here is that we were not talking about having a charter fare level that would permit all charter operators, efficient and inefficient, to make a profit. What we were talking about was some indication as to where charter rates would be so that the scheduled carriers could predicate their fares in relation to the charter floor.

There is a debate still raging as to the degree of CAB's authority to set a charter floor either by notice or proceeding, and that I think we best leave to the CAB and the courts to thrash out.

Senator KENNEDY. Senator Cannon has introduced the bill to make charter service more widely available, which I had the pleasure to join him on [S. 421]. Do you support that legislation?

Mr. BARNUM. We are going to be testifying before Senator Cannon next week. We are in the process of developing our position on that bill. There is much in it that we have supported in the past with respect to ITC's and other forms of charter. We have opposed the CAB proposal to drop affinity charters, and I am glad to see the CAB has delayed its decision in that respect.

We do think, particularly at a time when we are interested in getting more people into fewer planes, that the charter business is one way in which we should be able to increase low-cost transportation with substantial savings in energy. We are, therefore, encouraged to see Senator Cannon and yourself and others focusing on this very important issue, and we will address it specifically in the next week.

Senator KENNEDY. Mr. Ginther is here, who is the staff director of the aviation subcommittee. So you will be seeing a lot of him next week.

Mr. BARNUM. The Administration believes a fundamental shift is required away from over-protection of existing carriers to one which focuses on consumer needs and requires that more weight be placed on competitive principles in evaluating new applications for entry. We also believe that the CAB should not be permitted to delay decisionmaking as a means of limiting entry.

SMALL TOWN SERVICE (CROSS-SUBSIDY)

Route exit has in some cases also been restrained by the CAB. While we recognize the importance of service to communities of varying sizes, carriers should not be forced to lose money or operate on the assumption that other routes will subsidize those producing inadequate revenue. Cross-subsidies are inefficient economically and in practice do not work.

Where communities deem service essential, the carriers operate at a loss, and the route does not justify Federal subsidy, alternatives must be considered. These alternatives include replacement services by another carrier or subsidies by the community itself.

In this regard, I should note that we will not propose any immediate changes in the local subsidy program. However, we believe the CAB has an obligation to identify the cost of such subsidies by route and by city. This has not been done.

The Administration strongly supports liberalization of entry into the air carrier industry and our forthcoming proposal will provide for substantial entry and exit liberalization.

CHAOS

Senator KENNEDY. How do you respond to the point that this is going to let a lot of fly-by-night outfits come in and skim the cream off the top on the most heavy traveled routes, and lead to instability in these major market areas?

Mr. BARNUM. Putting aside the safety question, I think that my comments earlier about threshold prices are my first answer.

My second answer is you really can't startup an airline overnight and start providing the kind of cutthroat, cut price service that you are talking about. The CAB, of course, is going to have to certificate them as a carrier and the FAA authorize them to operate. I think it would be a rather fool-hardy enterprise for someone to invest, even on a lease basis, in the expensive equipment that would be required

to provide air transportation. It is not a business susceptible to a fly-by-night operation.

Senator KENNEDY. So I gather you have considered the possibility that instability and disruption of service might occur, and you are satisfied that, on that point at least, there is no real difficulty with more competition.

Mr. BARNUM. Yes. I am certainly satisfied in that respect. I am also satisfied that, given the economics of the air carrier industry, the likelihood of a fly-by-night operation and being able to skim the cream off a major market in the face of already entrenched competition from name carriers is not very realistic.

Obviously, it is something that needs to be watched very carefully. But I would not say that the activities, for example, of PSA and Southwest—going into the intrastate market at what was initially about a 40 percent cut below scheduled fares—demonstrate an undesirable result. I think it is a very good result. If that is the consequence of a fly-by-night entry, I would say that would be good.

Or, for example, where carriers operate in very high density markets, this kind of service is likely to be air shuttle-type service at which they have hourly service and they may or may not have a high load factor, depending on whether or not they have to add an extra plane a day. It is basically a no-frill service, and I would welcome that. But I would not be concerned about there being a fly-by-night entry into that market.

If another one of the major trunk lines saw a market that it thought it could impact and enter under our relaxed entry provisions and provide a shuttle from New York to Detroit, for instance, I think that would be very helpful.

Our air carriers are very concerned as to how they can keep their aircraft operating. Their goal is to get up to 11 or 12 hours a day. They will schedule aircraft not because of where people want to go to, but where they can move airplanes, where they can continue using them into the night. For example, if they go west at a particular time of day, do they get there in time to be able to fly on the west coast at a particular time? How do they position their planes? Those are very important considerations in the total operation of an airline.

To the extent you give carriers freedom of entry, or more entry than they have now, you will enhance their ability to use their aircraft and to react quickly as the market changes or, as indeed, as their competitors decide to move in or out of a market.

But I would not regard the possibility of a fly-by-night operation as derogating from the services of a scheduled carrier.

CAB'S THIRD MAJOR POWER: ANTITRUST IMMUNITY—CAPACITY REDUCTION AGREEMENTS AND OTHERS

I would like to move on to the third area where regulatory practices can be improved.

One of the most objectionable features of present CAB regulation is the approval of capacity reduction agreements in our domestic markets. At present, under section 412 of the Federal Aviation Act, if the Board finds capacity, pooling and other anticompetitive agreements

not adverse to the public interest, it may approve them; in so doing, it immunizes them from action under the antitrust statutes.

Capacity agreements were originally justified because of immediate, short term, severe financial distress. The Board has since permitted use of capacity agreements to resolve problems of unused capacity, fuel allocation, and low profits in certain markets. By apportioning capacity, such agreements effectively determine market share. As a result of Board actions, capacity limitation agreements have proliferated to the point where about 29 percent of the revenue passenger miles of the three largest carriers are now covered by capacity agreements. One economic effect is that, given the level of service provided, fares in covered markets are excessive. One can scarcely imagine agreements more anticompetitive in their effect. Such problems are far better resolved through market forces operating in a competitive environment.

DOT opposed the capacity agreements before the Board and has joined with the Antitrust Division of the Justice Department to oppose approval of the agreements before the District of Columbia Court of Appeals.

In contrast, some agreements arguably subject to challenge under antitrust laws do serve valid transportation objectives. These include interline agreements, airline scheduling committee agreements at congested airports, equipment leases, fuel supply agreements, reservation and ticketing arrangements and technical agreements with foreign air carriers.

We distinguish between the two types of agreements, the one anticompetitive in a way which contributes to economic inefficiency, the other which meets necessary transportation objectives. The Administration believes that anticompetitive agreements such as those for capacity limitation should be restricted or eliminated but that agreements which serve efficient transportation needs should be continued.

Senator KENNEDY. If the agreements are not in restraint of trade then they don't violate the antitrust law in any event. These areas that you have outlined seem to be reasonable agreements, so why do you need the exemption, in any event?

Mr. BARNUM. There are some agreements between carriers that we think are appropriate, that either arguably or clearly might result in litigation. They might be regarded as allocation of market or market-share agreements. Some of the joint fare agreements they have could be regarded as price fixing or market-share agreements.

Senator KENNEDY. As I understand the lawyers, it is only if an inter-carrier is unreasonable, that the exemption is necessary. If it is reasonable it does not violate the antitrust laws, even though it is an agreement?

Mr. BARNUM. What constitutes reasonableness under the Sherman Act is a very tough test to pass. Even putting aside merger agreements, just agreements with respect to ticketing costs or even use of airport at a particular time could be regarded as an anticompetitive or an agreement in violation of the Sherman Act. What constitutes reasonableness in the Sherman Act is not what a non-antitrust lawyer—

Senator KENNEDY. Would you be reassured by what the Department of Justice has said? Do you think they have a fair opinion in terms of the governmental policy, and that their input would be guided by the legal arm of the Government?

MR. BARNUM. I would be very pleased to have their input. I do not think, however, you would find any disagreement between us as to the meaning of reasonableness insofar as agreements between competitors is concerned. So far as existing law requires, I think you will find there is agreement.

However, we distinguish the two types of agreements, and I will say we should continue antitrust immunity for certain types of agreements. In our judgement, however, the airline industry is strong enough to survive and prosper without blanket antitrust immunity.

Section 408 of the act authorizes the Board to approve mergers. Mergers may be permitted unless the Board finds that they will be inconsistent with the public interest, would create a monopoly and thereby restrain competition, or would jeopardize another nonparty carrier. In our view, the standard used by the Board in determining whether mergers or consolidations are approved should be changed to require that competitive principles be weighed against transportation needs.

In DOT's filings to date, we have encouraged the CAB to find less anticompetitive solutions to many of the problems I have discussed. It is now clear that more decisive reform is necessary. In times of inflation, recession, and energy difficulties, the Nation can ill afford the extravagances created by the present air regulatory system. The administration proposal will get to the heart of the difficulties in each of the areas discussed by changing the regulatory structure which helped produce them. The air regulatory reform bill which we will present will address each of these issues in detail and will implement the basic policy objectives which I have outlined in my testimony.

We look forward to working with the subcommittee to explore each of these areas in more detail. We share the desire to modernize our regulatory structure and let the fresh air of competition make our transportation industry operate more efficiently at lower cost to the consumers we serve.

Thank you very much, Mr. Chairman, and if I can answer any additional questions, of course, I would be more than pleased to try to do so.

Senator KENNEDY. Well, we want to thank you for your presentation, and I think it is really an indication of the desire of the Department of Transportation to carry forward what President Ford outlined in his state of the Union address in identifying the regulatory agencies as a matter of concern, and trying to make them more effective, and obviously, as far as your Department is concerned, you are willing to move ahead in these directions even prior to the time of the development of a commission to deal with it. I think that that is really a credit to the Department.

MR. BARNUM. Thank you.

NEED FOR LEGISLATION

Senator KENNEDY. Let me ask you—are you satisfied these steps can be taken without new legislation?

MR. BARNUM. I think that new legislation would accelerate the steps that we have outlined. Most of the things that we have discussed could be done by the Board—to approach entry and exit, for instance—dif-

ferently than it is done. Certainly, in our judgment, the Board has authority to provide greater price flexibility than it has in the past. I think in general they could do much of what we recommend under existing law.

Senator KENNEDY. Is there anything they could not do under their existing statute?

Mr. BARNUM. No; I think they could adopt as Board practice, if you will, the time limits that we have suggested with respect to entry and exit and rate changes. They have not. As I stated, some of the proceedings have been unnecessarily protracted or put on the shelf, which has frustrated much of the innovation that we think is available to the industry.

I would urge this subcommittee—if you find the Congress is not prepared to make substantive amendments to the act—to point out ways in which you believe that the existing law and the practices appropriate under the existing law have, in fact, not been followed.

Senator KENNEDY. Why do you not think that the CAB has seen the problem the way that you have seen it here and moved on its own into these particular areas? You have no monopoly or expertise or understanding of these particular issues. What is your view about why they have not moved into these particular areas before?

Mr. BARNUM. Well, as I mentioned in my statement, the CAB evolved from an agency that was established to encourage a new industry as it was growing, an industry which required a certain amount of encouragement and protection, and which required a certain amount of regulation so that there would not result, in its early days, the type of cutthroat competition which you have described or the type of fly-by-night entry into the marketplace. But I think now that the industry is stabilized. Nonetheless, many of the things we think the CAB should do differently it is continuing to do the same way it did when the industry was developing. The way they address a problem today is the way they addressed it 10 years ago. I think we have gone past the point where we should continue business as usual with respect to the air carrier industry.

APPOINTMENT OF CAB MEMBERS

Senator KENNEDY. Do you think part of the problem has been the appointment process, the selection of people that have been selected and have had a strong orientation toward the industry, perhaps?

What role, if any, does the DOT have in making recommendations for the CAB?

I am not trying to personalize this, but I am interested in what your impression would be, not limited to any particular administration, but just as a practice.

Mr. BARNUM. Well, I share your concern in this respect. I think that I would judge the CAB by its rules and not by its personalities.

I think that the Board could be a more effective instrument in the regulation of air transportation, and it may very well be that those who constitute the Board are an essential ingredient in making it more effective. I think it is, in part, the tradition into which each new member of the Board steps as he joins the Board and finds out the way they have done things in the past and the rules of the past. And I think

the CAB is guided in part by stare decisis, its own decisions in the past. A new member has not been given a mandate by Congress to change what the Board has been doing in the past.

For someone to join the CAB, and to go in there and say, "No; that is all wrong, the statute means otherwise"—I think he would be trying to upset a great deal that the courts have written about and the Board has written about, and certainly, as a newcomer he would feel he had better find out how the Board works.

I think also the Board has been concerned about continued prosperity in the air industry, and properly so. To the extent that it has put such great emphasis on that, however, I think that has been a mistake. I think making a goal of 12 percent return on investment as a principal guiding factor in Board decisions is a mistake. I would be much more interested in seeing the Board trying to focus more on increasing load factors in its pricing decisions and as a result both saving energy and making the carriers more profitable.

With respect to our role in the Department as to who goes on the CAB, we are consulted, of course, by the White House in connection with CAB appointments and asked for recommendations and asked to comment on people that have been recommended by others.

Senator KENNEDY. Are you listened to over there?

Mr. BARNUM. I think so.

Senator KENNEDY. Good.

As the result of our November hearings, the staff made some suggestions with regard to procedures in establishing a minimum rate policy, and I understand you had some people looking at these recommendation and determining how they might be implemented. I am just wondering if you are prepared to say anything about that today?

Mr. BARNUM. Not at this time, sir.

Senator KENNEDY. Will you let us know at the earliest possible time what are your reactions to those recommendations?

Mr. BARNUM. I would like to advise you promptly or as promptly as I can just what our timing is with respect to commenting on those recommendations.

[The comments referred to are contained in a letter from DOT to Senator Kennedy which is printed at the end of Mr. Kutkze's testimony on February 18, 1975, See below, pp. 691-92.]

Senator KENNEDY. I suppose on the matters that you have mentioned here this morning, which are extremely significant, that you will be developing those proposals and recommendations in greater detail?

Mr. BARNUM. Yes.

Senator KENNEDY. Will you keep us informed how those are being developed?

Mr. BARNUM. We are in the process of discussing with the other agencies of the executive branch the various details of the three main areas that I have outlined to you. I would hope that we could continue to have the dialog between our several agencies and your staff and Mr. Ginther and the staff of the Commerce Committee. We want to achieve something that is meaningful and realistic in terms of positive enactment and that will address the basic issues that we see.

Senator KENNEDY. Well, we have enjoyed that cooperation in the past, and we have no reason to feel that it would not continue in the future. For that, we are very appreciative. I think it is a strong indication of the ability of the Congress to work with the administration

and the agencies. We appreciate that and we have found it very informative and very helpful.

I want to thank you very much. That has been a good presentation. Mr. BARNUM. Thank you, Mr. Chairman.

PREPARED STATEMENT OF JOHN W. BARNUM

Thank you for your invitation to present the views of the Administration on the important subject of regulation of air transportation and how it can be improved.

The Department is vitally interested in the issue. Since DOT's inception in 1967, we have participated in many proceedings before the Civil Aeronautics Board. In our Board filings, the Department has been a strong advocate of improving the economic performance of air transportation through increased reliance on competitive market forces. The unifying theme that runs through virtually all of our filings before the CAB is that greater reliance on competitive market forces will improve the economic performance of the industry and result in lower, more cost related rates, will reduce excess capacity and will provide the air traveling public with a wider and more desirable range of service and price options.

I believe we are now at a regulatory watershed. For the past several months, the administration has been reviewing the transportation regulatory system with a view to improving both performance and economic efficiency. The reform proposals presently being prepared by the administration mark a major departure from the regulatory regime we have relied upon in the past. The administration will submit to Congress in the near future a proposal which will fundamentally redirect our air transportation regulatory policy. Your hearings, therefore come at an opportune moment. Today I will outline the administration's position on regulation of air transportation.

The need for an air regulatory reform act is demonstrated both by economic research and by our experience. At present, for example, air carriers, shippers, and passengers frequently face a web of restrictive government regulations which stifle competition, discourage innovation, and foster inefficiency. In many respects, the present air regulatory structure is outdated, inequitable, inefficient, uneconomical and irrational. It often misplaces incentive and disincentive, distorts competitive advantage, protects inefficient carriers from effective competition, over-restricts market entry, artificially inflates rates and misallocates our Nation's resources. Under the current system, many consumers pay an artificially inflated price for air transportation because ratesetting, unnecessary entry restrictions, capacity agreements and other forms of shelter from competition sanctioned by the Board protect the least efficient carriers, permit rates substantially above an efficient cost level and distort competitive market forces. The resulting economic waste and associated inefficiency is substantial.

The present air regulatory system is the product of a different era. While the needs and conditions on which air regulation was first predicated some 40 years ago have changed, the goals and practices of government regulation have not. It is unfortunately a truism that regulation begets further regulation and that regulations outlive their rationale.

In 1938, when the Civil Aeronautics Act was passed, government assistance through protection, subsidy, promotion and regulation was a necessary factor in the development of a new and struggling industry. Thirty-seven years later, conditions have changed. The air travel market is mature. Traffic has grown. Growth has led to stability. The industry is vigorous. But the regulatory system which protected it and made it that way has not kept pace.

The problems once faced have been largely solved. Now we are faced with problems that are a byproduct of that success. The promotion which once fostered growth now causes inefficiency. The restriction which once guaranteed stability now retard competition. The regulatory protection which once insured existence now prevents savings.

We need a better system which comes closer to producing optimum social and economic results, one which maximizes efficiency, economies and consumer options and which produces the best mix between low-cost and high-quality service.

The most pressing problems in the airline regulatory field cluster in three broad areas: ratemaking and pricing flexibility, market entry and exit, and anticompetitive agreements. Each area is in need of reform. Let me identify what we see as the major difficulties involved, the actions DOT has taken, and the future direction which the administration suggests.

A major difficulty with CAB policy has been ratemaking and the carrier inability to raise and lower rates in response to the demands of the marketplace. This in turn forces carriers into costly and uneconomic service competition, deprives the traveling public of the range of price/service options which would otherwise be available, and results in substantial economic waste and inefficiency.

Section 404 of the Federal Aviation Act requires carriers to establish just and reasonable rates. Section 1002 permits the Board to prescribe maximum or minimum rates if it is of the opinion that the rates charged are unjust, unreasonable, preferential or discriminatory. In deciding whether a rate is too high or low the Board takes into account, among other factors, whether the fare is compensatory, providing the carrier with sufficient revenue.

The result of the Board administration of these sections has been the elimination of price competition, thereby restricting competition to service. Passengers find airlines competing for their patronage through elaborate cuisine, free drinks, attractive stewardess, multicolored planes, and piano bars. But they do not have a menu where different quality service is related to different prices. This is a serious loss.

Many passengers would prefer the opportunity to select carriers based on price in addition to type of service. Some passengers would prefer high load-factor, low-frill, low-fare service. Others are willing to pay for more comfortable and more costly service. Present procedures do not produce that variety of price/service options. Often, present regulation causes fares well above those which would result in a more competitive air transportation market. With prices fixed at levels above market rates, carriers compete on the basis of service. Such service competition produces substantial unused capacity and unnecessary low load-factors, presently averaging about 57 percent. In the transcontinental market, for example, rates are set sufficiently high to permit the carriers to earn a reasonable return with load factors in the mid-40 percent range. DOT believes that many transcontinental passengers would prefer the minor inconveniences associated with higher load factors in return for less expensive tickets. In a more competitive market, carriers would respond by providing such low cost service.

One recent study showed that at an average load factor of 75-percent prices could be 27 percent lower than at a 50-percent load factor. While 75-percent load factors are higher than DOT has recommended in most markets, this example illustrates the potential savings associated with pricing flexibility.

Present Board policies encourage lower than optimal load factors. DOT's testimony in the CAB's Domestic Passenger Fare Investigation (DPFI) showed that when load factors increase beyond a break-even level (defined to include profits), carriers schedule additional capacity, thereby lowering load factors to the break-even level again.

Because of this inflexibility, in the Domestic Passenger Fare Investigation, DOT, among other things, urged the Board to establish a 15-percent "zone of reasonableness" above and below the fare structure curve. The zone would not apply in monopoly markets, as defined by the CAB, where the Board would continue to review and suspend rates. Within the zone, carriers would be permitted to compete on the basis of price, free from regulatory interference. Outside the zone, the Board could continue to suspend rates it believed unlawful under its ratemaking standards. The limits of the zone ensure that neither dramatic price increases nor destructive price wars would ensue. The Department position rested on the premise that greater reliance on market forces would result in the establishment of rates based on costs and would afford the public a wider and better range of price/service options. We emphasized that the lack of price competition in the air industry was the primary cause of "seat wars" and other service competition which resulted in undue unused capacity, inflated cost levels, and too rapid obsolescence of equipment.

In its DPFI decisions, the Board did recognize that fares should be more closely aligned to costs. It largely adopted our conclusion that low fares for short-haul passengers should not be subsidized by higher fares for long-haul passengers. The Board was unwilling at that time, however, to adopt the broader principle of pricing flexibility, constrained only by costs.

Another procedural problem associated with pricing is CAB delay in deciding whether rates are reasonable. We believe the CAB should be required to render a final decision on rate proposals promptly. Also, streamlined procedures should enable the Board to dispose of some cases on the basis of pleadings alone, without formal hearings. Large scale investigations such as the DPFI may take longer, of course.

The administration strongly supports greater pricing flexibility for the airline industry. We expect that our legislation will incorporate proposals for pricing flexibility and expedited decisionmaking.

Another major problem with the present regulatory system is the Board's restrictive entry and exit policies. These policies have also restricted competition and increased costs to consumers.

Section 401 of the Federal Aviation Act gives the CAB control over entry into the industry; the Board is given authority to determine which carriers may operate in scheduled interstate service and on which routes they may operate. The applicant must be found fit, willing, and able to perform the service properly, and the transportation must be required by public convenience and necessity. CAB permission is also required for exit.

In practice, industry entry has been tightly controlled. Other than the 16 carriers operating when the 1938 Act took effect, there has not been a single new trunk carrier certificated in the Board's history. Through merger the 16 original trunks have shrunk in number to 10 which account for 90 percent of the total domestic market. The Board has, however, certified local service carriers, some of which are now as large as the smaller trunks.

Until recently, and especially in the late sixties, existing carriers were granted applications for new routes, thereby substantially reducing the number of monopoly markets. In the last few years, however, the CAB has put into effect a de facto moratorium on route awards. New route applications have not been set for hearing; processing applications which had been set for hearing has been delayed. The restrictive policy with respect to carrier entry has now been matched by a restrictive policy with respect to route entry.

The economic result of a restrictive CAB policy is that carriers do not enter and leave markets solely for business and profit reasons. New firms are discouraged by the standards applied and by the results they see, including the high cost of the application process and the delay in Board decisionmaking. The Board has protected incumbent carriers rather than encouraged healthy competition. As a result, in the majority of trunk markets, most passengers are carried by only one or two airlines.

The administration does not necessarily believe that additional carriers are required on every route to improve the working of the air transportation system. We do believe, however, that the present system removes the ability of the carriers to adjust services and realine the markets they serve as economic conditions warrant. This results in increased costs to the public.

The present system also does not recognize the importance of potential competition as an economic force. Thus, the carriers on an existing route need not be concerned about new competition unless the Board has a route case pending. In such circumstances, the existing carriers may be less diligent in providing the type of service and price/quality options desired by the public than they would be if they were aware that a competitor could enter at any time to provide new or higher quality service.

Another way of improving competition is by liberalizing charter rules and thereby offering the consumer a broader range of price and service options.

The administration believes a fundamental shift is required away from over-protection of existing carriers to one which focuses on consumer needs and requires that more weight be placed on competitive principles in evaluating new applications for entry. We also believe that the CAB should not be permitted to delay decisionmaking as a means of limiting entry.

Route exit has in some cases also been restrained by the CAB. While we recognize the importance of service to communities of varying sizes, carriers should not be forced to lose money or operate on the assumption that other routes subsidize those producing inadequate revenue. Cross-subsidies are inefficient economically and in practice do not work.

Where communities deem service essential, the carriers operate at a loss, and the route does not justify federal subsidy, alternatives must be considered. These alternatives include replacement services by another carrier or subsidies by the community itself.

In this regard, I should note that we will not propose any immediate changes in the local subsidy program. However, we believe the CAB has an obligation to identify the cost of such subsidies by route and by city. This has not been done.

The administration strongly supports liberalization of entry into the air carrier industry and our forthcoming proposal will provide for substantial entry and exit liberalization.

One of the most objectionable features of present CAB regulation is the approval of capacity reduction agreements in our domestic markets. At present, under section 412 of the Federal Aviation Act, if the Board finds capacity, pooling and other anticompetitive agreements not adverse to the public interest, it may approve them; in so doing, it immunizes them from action under the antitrust statutes.

Capacity agreements were originally justified because of immediate, short-term, severe financial distress. The Board has since permitted use of capacity agreements to resolve problems of unused capacity, fuel allocation, and low profits in certain markets. By apportioning capacity, such agreements effectively determine market share. As a result of Board actions, capacity limitation agreements have proliferated to the point where about 29 percent of the revenue passenger miles of the three largest carriers are now covered. One economic effect is that, given the level of service provided, fares in covered markets are excessive. One can scarcely imagine agreements more anticompetitive in their effect. Such problems are far better resolved through market forces operating in a competitive environment.

DOT opposed the capacity agreements before the Board and has joined with the Antitrust Division of the Justice Department to oppose approval of the agreements before the District of Columbia Court of Appeals.

In contrast, some agreements arguably subject to challenge under antitrust laws do serve valid transportation objectives. These include interline agreements, airline scheduling committee agreements at congested airports, equipment leases, fuel supply agreements, reservations and ticketing arrangements, and technical agreements with foreign air carriers.

We distinguish between the two types of agreements, the one anticompetitive in a way which contributes to economic inefficiency, the other which meets necessary transportation objectives. The administration believes that anticompetitive agreements such as those for capacity limitation should be restricted or eliminated but that agreements which serve efficient transportation needs should be continued.

Section 408 of the Act authorizes the Board to approve mergers. Mergers may be permitted unless the Board finds that they will be inconsistent with the public interest, would create a monopoly and thereby restrain competition, or would jeopardize another nonparty carrier. In our view, the standard used by the Board in determining whether mergers or consolidations are approved should be changed to require that competitive principles be weighed against transportation needs.

In DOT's filings to date, we have encouraged the CAB to find less anticompetitive solutions to many of the problems I have discussed. It is now clear that more decisive reform is necessary. In times of inflation, recession and energy difficulties, the Nation can ill afford the extravagances created by the present air regulatory system. The administration proposal will get to the heart of the difficulties in each of the areas discussed by changing the regulatory structure which helped produce them. The air regulatory reform bill which we will present will address each of these issues in detail and will implement the basic policy objectives which I have outlined in my testimony.

We look forward to working with the subcommittee to explore each of these areas in more detail. We share the desire to modernize our regulatory structure and let the fresh air of competition make our transportation industry operate more efficiently at lower cost to the consumers we serve.

Senator KENNEDY. Our second witness, Mr. Engman, since February 1973, has served as chairman of the Federal Trade Commission. He has directed particular attention to the agency's responsibilities in the area of antitrust law enforcement. He is outspoken on regulatory reform, and we are anxious to have his views on CAB regulation.

STATEMENT OF LEWIS ENGMAN, CHAIRMAN, FEDERAL TRADE COMMISSION

Thank you, Mr. Chairman.

Last year in November when I was asked to present the Federal Trade Commission's views on governmental restraints in the market-

place, I expressed concern that, like so many fashionable topics, it would be the subject of much discussion but little action. It is gratifying, therefore, to know that concern with this vital subject has continued into the 94th Congress, and I commend this committee for its role in continuing the inquiry.

At a time when rising prices threaten the welfare of every American, it would be folly indeed, if we were to fail to address this one area where such large efficiencies appear to be available to us without offsetting economic costs.

I am, therefore, pleased to be here, Mr. Chairman, and to have this opportunity to offer my views on Federal regulations affecting the airline industry.

Senator KENNEDY. You have an extensive statement here, and I want you to proceed in whatever way you feel comfortable, but if you want to highlight it or summarize it, I think, that will be helpful.

Mr. ENGMAN. I normally do that, Mr. Chairman, and I think this will not take long.

Lest someone else feel compelled to say it for me, I must state at the outset that I am no expert on the technical aspects of the airline industry. I suggest, however, that one need be no expert to perceive that something is amiss with the way the Government currently construes its responsibility toward the American consumer of air transportation.

As spokesman for an agency broadly charged with insuring that the consumer receives the best that the marketplace can provide for him, I find this situation disturbing.

The Federal Trade Commission is committed to the principle that people are best served by the effective operation of a free and competitive open market.

Today, those conditions are conspicuously absent in our airline industry. They are absent because, over 35 years ago, the Congress, after examining the needs of a then infant industry struggling to raise capital, decided that the public welfare demanded an exception to the principle of competition—demanded that the airline industry be given partial immunity from the antitrust laws and from the rigors of price competition. The arguments mustered in support of that decision were essentially two: That it was necessary to insure the industry against cutthroat competition, and that it was necessary to provide service to localities which would not otherwise receive it.

I was not around at that time. I did not hear the arguments made for and against what was done. But whatever arguments were made at that time and whatever industry conditions they reflected as you indicated, should be of little consequence to us today. For the relevant question now is, where has it all brought us?

There can be little doubt that much of what was intended has been achieved. Whether it is because of, or in spite of, regulation, I do not know, but today we have beyond question the most comprehensive air transportation network in the world. Moreover, despite the current depleted condition of several of our major carriers, the industry over the years has been characterized by extraordinary stability.

SERVICE COMPETITION AND EXCESS FLIGHTS

But these objectives have been achieved at a very high cost. Our system, which severely inhibits price competition and restricts entry,

has led to a fare structure on many routes which economists agree is far higher than that which would prevail if the industry were characterized by price competition and free entry. Several conditions flow from this fact.

The absence of any real price competition coupled with higher than competitive rates leads to large amounts of nonprice competition. One important type of nonprice competition is in terms of frequency of flights. This in turn leads to large amounts of excess capacity. It is not unusual today for several planes to fly almost identical schedules each with a small fraction of its seats filled on some flights.

Senator KENNEDY. That makes two of us. I have done a lot of flying.

I just found that out last Thursday evening when I was flying to San Francisco. There were two major flights within 5 minutes of each other, both going nonstop to San Francisco from Dulles Airport. Noticing that we had these particular hearings, I looked at both of them, and the first class in both were full and the rest about one-third full, and they landed within 5 minutes of each other. I have a staff assistant who is consultant for our Health Committee, who makes the trip once a month, and he has been doing a little informal review of this as well, and has found the exact same thing. He finds it going both ways. The point is well made.

Mr. ENGMAN. I have noticed the same situation. It is also true with other pairs of markets; Chicago, for instance.

In short, what we have is economic waste—the classic cost-plus syndrome. The air passenger who finds himself next to an empty seat may be pleased with this state of affairs. He is able to spread out a little. But I wonder how pleased he would be if he were aware that he had paid not only for the seat he was sitting in, but for the seat his briefcase was sitting in, too.

In addition, fixed rates have created a sort of phony war, a war in which airlines compete for business, not on the basis of price, but on the basis of scheduling and comfort. All of us today have standing invitation to fly Cheryl or Karen or Trixie or even Bruce. Those invitations are no more or less than confessions on the part of the airlines that our decision as to which to fly pretty much boils down to whether Cheryl is more attractive than Bruce.

This bogus competition along with creature comforts and the pressure to raise the number of flights can be explained by the simple economics of the airline industry. We start with an increase in fares. In the absence of price competition, each airline tends to compete away the "profits" from the fare increase by engaging in various forms of increased nonprice competition.

More frills are added. Witness the great free-drink battles of recent times or the lounge wars of some time back. Often flight frequencies are also increased. Unfortunately, this tends to reduce overall load factors on all the planes. Rates of return go down, and soon we are told a new fare increase is "required" to maintain the existing rates of return. The whole nonproductive cycle starts all over again.

ANALOGY TO SECURITIES INDUSTRY

The situation is analogous to that which existed in the securities industry a few years ago when it was operating on fixed rates across the board. Since brokerage houses could not offer the customer lower rates,

they offered frills—counseling services and the like. The brokerage houses argued that these frills were worth the extra money, but the institutional investors knew better, and they made the brokers give them the equivalent of rebates under the table. The American consumer of air transportation does not have that power. I wonder how he would act if he did.

Comfort and scheduling are undoubtedly worth something to consumers. But are they worth the price he must pay for them? Obviously, they are worth nothing to those who cannot afford to fly because of the high prices. There is evidence which suggests also that they are not worth it even to those who can and do fly. If it were true, given the choice, some people would choose to pay the higher rates for deluxe or frequent service, why does the industry and the Government shy away from giving them that choice? For surely that has been the pattern in recent years.

RESTRICTIONS ON CHARTERS

Our current system of regulation has prevented the entry of new carriers willing to fly for less. And it has frustrated charter operations willing to lay on "barebone" service at a fraction of the going rates.

It is argued that these limitations are necessary to prevent so-called undue diversion from the scheduled carriers. We can recognize that argument for what it is. "Diversion" would not occur if people thought frequent flights and frills were worth the price.

Do not misunderstand me. I have nothing against Cadillacs. But I question the equity of a system that forbids the sale of Pintos. And I also wonder about a system which permits producers of a "big ticket" item like air transportation to avoid the issue of price except when it is to tell the consumer that a special rate awaits him if he is leaving on a Wednesday morning, plans to remain at his destination for precisely 53 days, is carrying no luggage, and is a charter member of the Flat Earth Society.

COST OF REGULATION

It may be impossible to get a precise measure of how much our system of regulation actually costs the airline customer and the American public. But we can get a rough idea from examining prices in those few markets where regulated carriers face competition from intrastate carriers not subject to Federal regulation. Two such markets currently exist in California and Texas, as the acting Secretary indicated, and you have doubtless already heard and read much about them. Suffice it to say that the unregulated intrastate carrier entered the market with substantially lower fares in each instance. In the case of Texas, the price differential remains today with the result that consumers are offered a lower cost alternative—offered it, I might add, by a financially successful airline, Southwest Airlines. In the case of California, the low-cost competition offered by Pacific Southwest Airlines forced the interstate carriers to appeal for and finally to get from the Government permission to lower their rates to the level of the competition. But you need only step across the State line to appreciate the local character of this consumer benefit. It still costs much more to fly the 226 miles from Los Angeles to Las Vegas than it does to fly the 347 miles from Los Angeles to San Francisco.

The cost to the consumer of continued regulation is suggested also by a 1972 economic study in which the costs of airline operations were compared with fares for flights between 30 different pairs of cities. These comparisons showed that, in markets where there was no competition from an unregulated carrier, fares exceeded costs, costs being defined to include a 7.5 percent return on investment, from 47 percent to 84 percent. Since, with competition, fares could be expected roughly to parallel costs, this wide variation would seem to suggest that the experiences in Texas and California do not reflect unique circumstances.

These then are at least some of the costs that have been imposed on the public in stressing stability and comprehensive service. Whether one has been worth the other is a policy question which Congress should consider.

But any weighing of costs and benefits surely should be preceded by a close examination of their relationship. For it can be argued that many of the costs incurred were not necessary to the attainment of the benefits intended.

SMALL TOWN SERVICE (CROSS-SUBSIDY)

Consider first the benefit of comprehensive service—that is, service to parts of the country where traffic is too light to support a scheduled airline. It is often argued that high fares on heavily traveled routes are needed to subsidize losses on sparser runs which the regulated carriers are required to fly. I frankly have to tell you I do not know how much of this “cross-subsidization” actually occurs, but assuming that there is some, it has the effect of putting the entire industry on a de facto cost-plus system of return, a system which experience has indicated is a very poor check on inefficiency. Also, requiring one air passenger to subsidize the flight of another raises a serious question of equity. If it is a desirable thing to have air service between two small towns, why should only one class of citizens be asked to bear the cost of it?

Finally, the system raises the question of resource allocation, for there can be no question that a subsidy paid from high fares on heavily traveled routes causes misallocation of resources.

Higher fares on denser routes inhibit travel on those routes. The “right” amount of air travel on those routes would be the amount which people would buy at a price which just covered all costs of providing the service. Higher prices will cause them to buy less than that amount. And the resulting loss to society is the same as it would be had the higher price been the result of private price fixing or monopoly.

I express no view on the question of whether some flights should be directly subsidized. I suggest simply that if we are to have a system under which some people subsidize service to others, we should, at the very least, be able to identify its costs so that we can intelligently examine alternate forms of subsidy and so that we can periodically reassure ourselves that the benefits are worth the costs.

DESTRUCTIVE COMPETITION

The other pillar—in addition to comprehensive service—on which our current regulatory system stands is the need to prevent “cut-

throat" competition which could threaten the industry's stability and perhaps result in a single-firm monopoly.

This has not happened in California, and I see no reason to expect that it would be a general problem.

The number of firms present in any industry depends largely on whether there are large economies of scale relative to market demand. If there are, there will be only a few firms in the industry. In the most extreme cases, there may be only one.

But the airline industry does not have large economies of scale. The basic unit of production is the airplane itself. Economic studies indicate that an efficient airline can be run with only a few of them. They can be—and are—easily shifted from one route or one carrier to another.

Single firm service may emerge on some lightly traveled routes because of the small size of the market. But it is doubtful that such firms could charge monopoly prices because of the constant threat of entry by other firms, if it were permitted. The ability to shift planes easily from one market to another makes the threat of entry quite credible in this industry.

Much of what I have just said you have doubtless heard from others. The question is, "what do we do about it?"

CAB asks airlines for data on their liquor costs. I know what they are doing.

That is one of the purposes of these hearings, and because the answer to the question of what we can do about it is really not all that clear, perhaps, but there are two points, Mr. Chairman, which are quite clear to me.

First, I believe that no one is going to be able to provide a complete answer until we have a better accounting of the costs and benefits of the current system. At present, neither the Federal Trade Commission, nor the Congress nor the American public has any idea of what the current system of regulation costs or what it produces. My interest in this question as a Federal official is not as important as my interest as an air traveler—incidentally, with three young sons—and as a taxpayer since I, along with millions and millions of other Americans, am paying the bills.

COST OF REGULATION

Senator KENNEDY. You cannot really tell how much they would save the consumer?

Mr. ENGMAN. The precise number is one which is beyond our ability to know. As you, Mr. Chairman, cited a study which I have cited in the past, the question of \$17-\$18 billion range, that has been cited across the board, that of course includes surface transportation, too, studies indicating the range from 48-84 percent overcharging on the 30 selected flights indicated there, and certainly we are talking about hundreds of thousands and probably millions of dollars each year.

I think in terms of specifics as to some of these cost questions, such as to whether or not how much do we really know, how much cross subsidies do we really have going on, or is this a kind of issue that has just been raised to tend to confuse the issue would be helpful, and we have to work to continue to improve the information we have available to us.

Senator KENNEDY. Do you have the ability or does the Federal Trade Commission have that kind of ability, to develop figures on this?

Mr. ENGMAN. We have a large staff of economists, Mr. Chairman, who are kept busy by a number of investigations and studies which the Congress asks us to undertake, primarily in the antitrust enforcement area. We do not have immediate access to some of the data that the Civil Aeronautics Board does. But to the extent Congress, in terms of providing us with resources and money, are interested in us proceeding with the further investigation so some of these economic elements, speaking for myself, and I am sure on behalf of the Commission, would be more than happy to comply.

That is the first point and the data point.

Second, in terms of what I am clear about in answering this question of what we should do, my experience has led me to conclude that the free enterprise system is the best regulator of all. I can see nothing about the airline industry which would suggest to me that in 1975, Government regulation of the airline industry is providing the consumer with more for his money than the free market would provide. Therefore, I suggest you listen to proponents of regulation with an open mind, as I have done. But I submit, given the conditions that exist today in the industry and in regulated industries in general, that the competitive market should be made the point of departure for the debate and that the burden of proof should rest with those who argue against competition rather than those who would return to it. The burden should also be on those who, in the name of reform, stop short of this goal.

There will be doomsayers who will forecast the direct consequences of deregulating rates and entry. Typically, they will be based on the reductio ad absurdum case in which at 12:47 on a Wednesday afternoon, we shift from total regulation to open competition. It need not occur that way. If the Congress were to determine that a move in the direction of the free market were warranted, it could easily enough be accomplished in stages. There is ample precedent. Several years ago the SEC was looking at an analogous situation in the securities industry. Brokers then operating on a fixed rate basis argued bitterly that negotiated rates would be a disaster. The SEC rejected that argument and decided to move ahead, not all at once, but on a staged basis. Beginning with purchases of over \$500,000, rates were left to the forces of the market.

SAFETY AND COMPETITION

Senator KENNEDY. But you did not really have the issue of life, sustaining your industry. If you made a mistake in that, it was just a matter of brokers' fee. Here in terms of safety it is people's lives.

Mr. ENGMAN. We are not talking about safety. I am talking about the Civil Aeronautics Board. The requirements for safety are handled by the Federal Aviation Administration. If I agree with what I have read in the papers, perhaps there ought to be some tightening up of regulation over there, which is under the jurisdiction of the Department of Transportation. But that kind of safety regulation which we are all in favor of, the traveling public, does not come under the jurisdiction of the Civil Aeronautics Board.

THE POSSIBILITY OF CHAOS

Senator KENNEDY. With the newer, costly equipment and the additional energy costs, in considering open entry and competition in fares, are we not talking about a situation which is inviting chaos?

Mr. ENGMAN. I am not at all sure that would be the situation, Mr. Chairman. We do not really know what would happen, perhaps.

I suggest part of the problem in the existing market is that some carriers—for example, Pan Am is not permitted to compete in some of the more lucrative routes. I was happy to see that the Department of Justice recently suggested to CAB that that might be one of the answers to Pan Am's problem.

But as my earlier testimony suggested, the present system, which prohibits price competition, in fact encourages the type of situation to exist with overcapacity, and that leads to costs higher than they otherwise would be, and bad profit.

Obviously there may be some differences, but even in the securities industry back a few years ago, we had a bear market, falling volume on the stock exchange, but there were really no disasters that came about as a result of the abolition of the fixed-rate fee system. It was done in a series of stages until finally the system was abolished altogether. It is not a pure analogy, but it seems to me a similar approach might be taken toward the airlines.

I suggest a scheduled return to the free market over 2 years or 4 years or whatever period Congress deems appropriate. This would put the fundamental arguments in support of regulation on trial. And it could be done in a manner that would allow the decision as to how far to go to be based on fact and proven results rather than on theory.

My own guess is that we would make it all the way back to "regulation" by the free market and that we would be better off for it.

Thank you very much, Mr. Chairman, I will be more than happy to attempt to respond to any questions that you might have.

Senator KENNEDY. Thank you very much.

I value very highly your testimony and your comments.

We in the Congress have been very impressed with the efforts that you have made in the Federal Trade Commission in attempting to bring about a variety of reforms. I think you are aware that a few years ago we had some hearings on various procedures and practices within the Federal Trade Commission and made a number of recommendations. I must say that I have been enormously impressed with what has been achieved under your leadership in the Commission.

Mr. ENGMAN. Thank you.

Senator KENNEDY. I think that has been of great value to the American public.

NEED FOR LEGISLATION

I am wondering whether you think a number of these points that you have raised here can be done, a number of these reforms can be achieved without additional legislation. You have seen very substantial reform within your own agencies without corresponding legislation, I believe, and I am just wondering whether you feel these other points that you have raised here this morning can be done likewise without legislation?

Mr. ENGMAN. It is a good point, Mr. Chairman.

Let me say first of all that I think honesty would compel me to say that although a great deal of the impetus at the Federal Trade Commission could come from the Commission, I think a number of things we have been able to accomplish, in my view the past few years, have been the result of the cooperation and assistance of the Congress, not only in terms of holding hearings on certain questions, and particularly recently again in terms of assisting us with some kind of additional legislative authority. But I do appreciate your remarks.

I think, as Secretary Barnum indicated, there is quite a bit that could be done under the existing legislation. Certainly a different approach, a more liberalized approach could be taken by the Board with respect to limitations on entry. I certainly feel that under section 1002 of their act they have the ability to not suspend proposed fare decreases by various airlines, and that would be a step in the right direction. They could encourage price competition, price quality option, and although I am not an aviation regulatory expert, I believe that they could give serious consideration on their own to adopting the kind of proposal which Mr. Barnum outlined this morning with respect to establishing a zone of reasonableness with respect to pricing.

I do suggest there are some inbred difficulties within any institution after a period of time, and because of the value of precedent and because the agency was initially established in effect to promote—and it still views as one of its functions—the airline industry in the United States.

With that kind of objective and that kind of gloss written over their responsibilities, let me say, I am not optimistic that substantial changes will be made or sufficient changes will be made by the Board.

APPOINTMENT OF CAB MEMBERS

Senator KENNEDY. Do you think some of the problem is the appointment process? We talked a little bit about that earlier.

Mr. ENGMAN. I heard the discussion on that.

Senator KENNEDY. How would you change that?

Mr. ENGMAN. Let me first confess that my focus on it with respect to this system of regulation basically has been an institutional one and I have not given a great deal of thought to the earlier questions, and I cannot really speak from firsthand knowledge as to what that process has been with respect to that agency.

I know as far as my own process went that the Commerce Committee I thought did a good, extensive, thorough job of analysing qualifications in the examinations I have seen them undertake, and I think it is the responsibility of Congress to do that. Whether or not that has been done sufficiently with respect to some of the areas, I frankly do not know. But I think there is a role for improvement of the process. I happen to believe there is nothing we have around that is so sacred that we cannot improve it unless it is something like the first amendment. As a result of that, I think, there may be an admirable approach there.

Senator KENNEDY. Fine. Very helpful. We want to thank you very much for your presentation.

Mr. ENGMAN. Thank you very much, Mr. Chairman, for the opportunity to be here.

PREPARED STATEMENT OF LEWIS A. ENGMAN

Last year when I was asked to present the Federal Trade Commission's views on governmental restraints in the marketplace, I expressed concern that, like so many voguish topics, it would be the subject of much discussion but little action. It is gratifying, therefore, to know that concern with this vital subject has continued into the 94th Congress, and I commend this subcommittee for its role in continuing the inquiry.

At a time when rising prices threaten the welfare of every American, it would be folly indeed if we were to fail to address this one area where such large efficiencies appear to be available to us without offsetting economic costs.

I am, therefore, pleased to be here, Mr. Chairman, and to have this opportunity to offer my views on Federal regulations affecting the airline industry.

Lest someone else feel compelled to say it for me, I must state at the outset that I am no expert on the technical aspects of the airline industry. I suggest, however, that one need be no expert to perceive that something is amiss with the way the Government currently construes its responsibility toward the American consumer of air transportation.

As spokesman for an agency broadly charged with ensuring that the consumer receives the best that the marketplace can provide for him, I find this situation disturbing.

The Federal Trade Commission is committed to the principle that people are best served by the effective operation of a free and competitive open market.

Today, those conditions are conspicuously absent in our airline industry. They are absent because, over 35 years ago, the Congress, after examining the needs of a then infant industry struggling to raise capital, decided that the public welfare demanded an exception to the principle of competition—demanded that the airline industry be given partial immunity from the antitrust laws and from the rigors of price competition. The arguments mustered in support of that decision were essentially two: that it was necessary to ensure the industry against "cut-throat" competition and that it was necessary to provide service to localities which would not otherwise receive it.

I was not around at that time. I did not hear the arguments made for and against what was done. But whatever arguments were made at that time and whatever industry conditions they reflected should be of little consequence to us today. For the relevant question now is where has it all brought us?

There can be little doubt that much of what was intended has been achieved. Whether it is because of, or in spite of, regulation, I do not know, but today we have beyond question the most comprehensive air transportation network in the world. Moreover, despite the current depleted condition of several of our major carriers, the industry over the years has been characterized by extraordinary stability.

But these objectives have been achieved at a very high cost. Our system, which severely inhibits price competition and restricts entry, has led to a fare structure on many routes which economists agree is far higher than that which would prevail if the industry were characterized by price competition and free entry. Several conditions flow from this fact.

The absence of any real price competition coupled with higher than competitive rates leads to large amounts of nonprice competition. One important type of nonprice competition is in terms of frequency of flights. This in turn leads to large amounts of excess capacity. It is not unusual today for several planes to fly almost identical schedules each with a small fraction of its seats filled on some flights. In short, there is economic waste—the classic cost-plus syndrome. The air passenger who finds himself next to an empty seat may be pleased with this state of affairs. He is able to spread out a little. But I wonder how pleased he would be if he were aware that he had paid not only for the seat he was sitting in, but for the seat his briefcase was sitting in, too.

In addition, fixed rates have created a sort of phony war, a war in which airlines compete for business, not on the basis of price, but on the basis of scheduling and comfort. All of us today have standing invitations to fly Cheryl or Karen or Trixie or even Bruce. Those invitations are no more or less than confessions on the part of the airlines that our decision as to which to fly pretty much boils down to whether Cheryl is more attractive than Bruce.

This bogus competition along with creature comforts and the pressure to up the number of flights can be explained by the simply economics of the airline industry. We start with an increase in fares. In the absence of price competition each airline tends to compete away the "profits" from the fare increase by engaging in various forms of increased nonprice competition.

More frills are added. Witness the great free drink battles of recent times or the lounge wars of some time back. Often flight frequencies are also increased. Unfortunately, this tends to reduce overall load factors on all the planes. Rates of return go down, and soon a new fare increase is "required" to maintain the existing rates of return. The whole non-productive cycle starts all over again.

The situation is analogous to that which existed in the securities industry a few years ago when it was operating on fixed rates across the board. Since brokerage houses could not offer the customer lower rates, they offered frills, counseling services and the like. The brokerage houses argued that these frills were worth the extra money, but the institutional investors knew better and they made the brokers give them the equivalent of rebates under the table. The American consumer of air transportation doesn't have that power. I wonder how he would act if he did.

Comfort and scheduling are undoubtedly worth something to consumers. But are they worth the price he must pay for them? Obviously, they are worth nothing to those who cannot afford to fly because of the high prices. There is evidence which suggests also that they are not worth it even to those who can and do fly. If, given the choice, some people would choose to pay the higher rates for deluxe or frequent service, why does the industry and the Government shy away from giving them that choice? For surely that has been the pattern in recent years.

Our current system of regulation has prevented the entry of new carriers willing to fly for less. And it has frustrated operations willing to lay on "bare-bones" service at a fraction of the going rates.

It is argued that these limitations are necessary to prevent "undue diversion" from the scheduled carriers. We can recognize that argument for what it is. "Diversion" would not occur if people thought frequent flights and frills were worth the price.

Do not misunderstand me. I have nothing against Cadillacs. But I question the equity of a system that forbids the sale of Pintos. And I wonder about a system which permits producers of a "big ticket" item like air transportation to avoid the issue of price except when it is to tell consumer that a special rate awaits him if he is leaving on Wednesday morning, plans to remain at his destination for precisely 53 days, is carrying no luggage and is a charter member of the Flat Earth Society.

It may be impossible to get a precise measure of how much our system of regulation actually costs the airline customer and the American public. But we get a rough idea examining prices in those few markets where regulated carriers face competition from intrastate carriers not subject to Federal regulation. Two such markets currently exist in California and Texas, and you have doubtless already heard and read much about them. Suffice it to say that the unregulated intrastate carrier entered the market with substantially lower fares in each instance. In the case of Texas, the price differential remains today with the result that consumers are offered a lower cost alternative—offered it, I might add, by a financially successful airline, Southwest Airlines. In the case of California, the low cost competition offered by Pacific Southwest Airlines forced the interstate carriers to appeal for and to get from the government permission to lower their rates to the level of the competition. But you need only step across the state line to appreciate the local character of this consumer benefit. It still costs much more to fly the 226 miles from Los Angeles to Las Vegas than it does to fly the 347 miles from Los Angeles to San Francisco.

The cost of the consumer of continued regulation is suggested also by a 1972 economic study in which the costs of airline operations were compared with fares for flights between 30 different pairs of cities. These comparisons showed that, in markets where there was no competition from an unregulated carrier, fares exceeded costs, including a $7\frac{1}{2}$ percent return on investment, by from 47 percent to 84 percent. Since, with competition, fares could be expected roughly to parallel costs, this wide variation would seem to suggest that the experiences in Texas and California do not reflect unique circumstances.

These then are at least some of the costs that have been imposed on the public in stressing stability and comprehensive service. Whether one has been worth the other is a policy question which Congress should consider.

But any weighing of costs and benefits surely should be preceded by a close examination of their relationship. For it can be argued that many of the costs incurred were not necessary to the attainment of the benefits intended.

Consider first the benefit of comprehensive service, that is, service to parts of the country where traffic is too light to support a scheduled airline. It is often argued that high fares on heavily travelled routes are needed to subsidize losses on sparser runs which the regulated carriers are required to fly. I do not know how much of this "cross-subsidization" actually occurs, but assuming that there is some, it has the effect of putting the entire industry on a de facto cost-plus system of return, a system which experience has indicated is a very poor check on inefficiency. Also, requiring one air passenger to subsidize the flight of another raises a serious question of equity. If it is a desirable thing to have air service between two small towns, why should only one class of citizens be asked to bear the cost of it?

Finally, the system raises the question of resource allocation, for there can be no question that a subsidy paid from high fares on heavily travelled routes causes misallocation of resources.

Higher fares on denser routes inhibit travel on those routes. The "right" amount of air travel on these routes would be the amount which people would buy at a price which just covered all costs of providing the service. Higher prices will cause them to buy less than that amount. And the resulting loss to society is the same as it would be had the higher price been the result of private price fixing or monopoly.

I express no view on the question of whether some flights should be directly subsidized. I suggest simply that if we are to have a system under which some people subsidize service to others, we should, at the very least, be able to identify its costs so that we can intelligently examine alternate forms of subsidy and so that we can periodically reassure ourselves that the benefits are worth the costs.

The other pillar—in addition to comprehensive service—on which our current regulatory system stands is the need to prevent "cutthroat" competition which could threaten the industry's stability and perhaps result in a single-firm monopoly.

This has not happened in California, and I see no reason to expect that it would be a general problem.

The number of firms present in any industry depends largely on whether there are large economies of scale relative to market demand. If there are, there will be only a few firms in the industry. In the most extreme cases, there may be only one.

But the airline industry does not have large economies of scale. The basic unit of production is the airplane itself. Economic studies indicate that an efficient airline can be run with only a few of them. They can be—and are—easily shifted from one route or carrier to another.

Single firm service may emerge on some lightly travelled routes because of the small size of the market. But it is doubtful that such firms could charge monopoly prices because of the constant threat of entry by other firms. The ability to shift planes easily from one market to another makes the threat of entry quite credible in this industry. Much of what I have said you have doubtless heard from others. The question is "what do we do about it?" This is obviously a complex area, and the precise answer to that question is not clear. However, two points are quite clear to me.

First, I believe that no one is going to be able to provide a complete answer until we have a better accounting of the costs and benefits of the current system. At present, neither the Federal Trade Commission, nor the Congress nor the American public has any idea of what the current system of regulation costs or what it produces. My interest in this question as a Federal official is not as important as my interest as an air traveller and a taxpayer since I, along with millions and millions of other Americans, am paying the bills. Congress' need to know is greatest of all. For without the facts on the table, you will have no frame of reference against which to compare alternate approaches.

Second, my experience has led me to conclude that the free enterprise system is the best regulator of all. I can see nothing about the airline industry which would suggest to me that in 1975, Government regulation of the airline industry is providing the consumer with more for his money than the free market would provide. Therefore, I suggest you listen to proponents of regulation with an open mind, as I have done. But I submit, given the conditions that exist today in the industry and in regulated industries in general, that the competitive market should be made the point of departure for the debate and that the burden of proof should rest with those who argue against competition rather than with those who would return to it. The burden should also be on those who, in the name of reform, stop short of this goal.

There will be doomsayers who will forecast the direct consequences of de-regulating rates and entry. Typically they will be based on the reductio ad absurdum case in which at 12:47 on a Wednesday afternoon we shift from total regulation to open competition. It needn't occur that way. If the Congress were to determine that a move in the direction of the free market were warranted, it could easily enough be accomplished in stages. There is ample precedent. Several years ago the SEC was looking at an analogous situation in the securities industry. Brokers then operating on a fixed rate basis argued bitterly that negotiated rates would be a disaster. The SEC rejected that argument and decided to move ahead, not all at once, but on a staged basis. Beginning with purchases of over \$500,000, rates were left to the forces of the market. Though this occurred against the background of a bear market and falling volume, there were no disasters. So the cutoff level for negotiated rates was lowered, not just once but again and again at periodic intervals until the fixed rate system was abolished altogether.

It may not be a perfect analogy, but it seems to me that a similar approach could be taken toward the airlines. I suggest a scheduled return to the free market over 2 years or 4 years or whatever period Congress deems appropriate. This would put the fundamental arguments in support of regulation on trial. And it could be done in a manner that would allow the decision as to how far to go to be based on fact and proven results rather than on theory.

My own guess is that we would make it all the way back to "regulation" by the free market and that we would all be better off for it.

Senator KENNEDY. Our next witness is the Assistant Attorney General for the Antitrust Division, the Department of Justice, Mr. Kauper. He formerly served in the Office of Legal Counsel. He was a law professor at the University of Michigan. We welcome him here this morning.

A great deal of attention has been focussed on the Antitrust Division. I am sure you know how important your own work is. I want you to know that we in the Congress think so, too.

You have very extensive testimony here. I am just wondering how you want to proceed. I want to give you a fair chance to present it.

STATEMENT OF THOMAS E. KAUPER, ASSISTANT ATTORNEY GENERAL, ANTITRUST DIVISION, DEPARTMENT OF JUSTICE, ACCOMPANIED BY DONALD BAKER AND KEITH CLEARWATERS, DEPUTY ASSISTANT ATTORNEYS GENERAL

Mr. KAUPER. Mr. Chairman, at your staff's request I have been sitting out there marking out portions of it.

So, I think, what I will try to do is to go through it, but omitting very substantial parts.

Senator KENNEDY. We will obviously include it in the record.

Mr. KAUPER. I am accompanied by Deputy Assistant Attorney General Donald Baker on my right, and on my left Deputy Assistant Attorney General Keith Clearwaters, who will be taking part in these hearings.

Mr. Chairman, I am happy to be here today to present the views of the Department of Justice and to report on the work that the administration is doing on economic regulation of domestic air transportation.

Airline costs affect us all as citizens, taxpayers, and consumers. They affect us when we buy products, when we carry out our jobs, and when we travel for pleasure. Airline costs are in turn directly affected by airline regulation—for it is regulation which tells carriers on which routes they can compete and what means of competition they can use. Basically, it keeps entry tight, while allowing carriers to compete in terms of service but not price. The result is, as you would expect, a sys-

tem which sets both price and service at levels above what they would be in a competitive market—in other words, there are more planes, with more empty seats, and the customer pays more than he would under a regime of open competition.

For years nobody much worried about CAB price and entry policies, because we were in a continuing trend of improving equipment, declining cost, declining prices, and rapidly growing traffic. The airline traveler's world was getting better, even though CAB rate and entry regulation was probably slowing down at least the rate at which fares declined, and encouraging excess capacity.

Now, however, the situation has changed. Due to sharply higher fuel and labor costs, airlines have been requesting, and the Board has approved, a whole series of fare increases, which have come at a time when the public at large was, if anything, less able to pay these fares. At the same time, the Board has actively sought to cut back on low-price air travel, through limitations on promotional fares and restrictions on charter activity. The result of all this has been to raise fares considerably for everyone and to raise them enormously for certain classes of users. The overall effect has been to produce an almost unprecedented substantial reduction in air travel—more empty seats on scheduled flights and fewer charter flights. The reduction in demand has tended to push up the airlines' unit costs, since they have had to spread out their fixed costs over fewer passengers. This in turn has provided the impetus for renewed fare increases, a situation likely to further reduce air travel and hence again increase unit costs. The resulting spiral of increasing fares and costs means that the smaller proportion of the public which can afford to fly gets reduced service at increased prices.

REGULATION OF FARES AND ROUTE ENTRY

We in the administration have been studying for some time how to break out of this upward spiral of prices and costs. We have concluded that the most hopeful avenue is a substantial relaxation of existing price and entry regulation, which forces carriers to offer excessive amounts of unused seats at excessively high fares. That system of regulation has in addition prevented innovative newcomers from coming into the business of interstate air transportation, in the interest of protecting the established carriers against new competition. We believe that more open competitive pricing, if given a chance, would broaden the carriers' entrepreneurial opportunities by giving them a chance to compete with lower fares as well as with extra seats. We believe that it would tend to bring interstate air transportation more into line with what we saw in California and Texas. An environment of lower fares and fuller planes. If this occurs—and both actual experience and economic theory suggest that it will—we have found a basis for breaking the cycle of rising costs and declining service. Lower prices are likely to come quite quickly and lower prices are likely to encourage new traffic quite quickly. By the same token, liberalized entry rules—an environment with less emphasis on route protection—are likely to get onto the routes those carriers who are most efficient at serving them. In a competitive environment, such efficiencies can in turn be passed on to the traveler in the form of lower fares.

The Department's perspective on airline regulatory problems is based of course on our experience in enforcing the antitrust laws in a great variety of industries having a diversity of cost and capital characteristics. It is based on our extensive participation before the CAB in a variety of proceedings. And it is based on our experience in anti-trust enforcement in other regulated industries, some of which have economic characteristics similar to those of air transportation. Our experience tells us that regulated firms rarely welcome freer entry rules and more flexible pricing. They generally want to be protected from outsiders and protected from each other by a benevolent regulator. In the airline field, regulated firms generally have opposed pricing flexibility and offered capacity cartel agreements instead. Yet our experience also tells us that in fact competition works in regulated environments much more efficiently than the regulated firms generally believe; and we find increasing use of competition in place of direct regulation as a tool to promote efficiency in a number of regulated environments—ranging from wholesale electric power to securities markets.

The Department is currently working with the Department of Transportation, the Council of Economic Advisers, the Council on Wage and Price Stability and the Office of Management and Budget to develop detailed administration proposals which respond to this reality in the transportation sector. We hope to have detailed proposals for air transport regulation reform for presentation to the Congress in the near future. At this point, these agencies have arrived at a broad consensus in principle, which we will discuss today.

We all agree that regulation of rates and routes has been excessive and has inflated present cost and fare levels.

We believe the Government should regulate the airlines where necessary to insure the safety and reliability of air transportation—but this clearly does not require direct Government regulation of airline pricing and entry to the current extent. We believe the focus of Government regulation of the airlines should be on these essentially noneconomic goals, with clear standards and procedures which insure that regulatory powers are not used to unnecessarily limit competition. Even if full rate regulation is deemed necessary to deal with certain problems—for instance, the prevention of monopoly pricing in certain markets—such regulation should be carefully crafted to limit and clarify goals, standards and procedures.

Reform only of procedural—rather than substantive—provisions of the act cannot correct the fundamental problem of its ambiguous and sometimes conflicting stated objectives. Procedural reform of the act might well be desirable, but it is not likely to be successful without a narrowing and clarification of the standards the Board may apply in making economic decisions, and of the scope of airline activities subject to those decisions. Such a redefinition of the act's economic goals and standards would be a substantial improvement. And in our view, such a redefinition would call into question the continued usefulness of much of present economic regulation.

CAB AUTHORITY TO GRANT ANTITRUST IMMUNITY

The administration group also agrees that the CAB should not be given broad authority to immunize from the antitrust laws all the

private agreements and mergers it approves. Accordingly, our proposals will provide for a much narrower area of antitrust exemption, and for a merger approval approach generally modeled on the Bank Merger Act of 1966.

To explain the basis for these rather broad conclusions, I will sketch briefly the circumstances which led to the imposition of Federal economic regulation of the airlines, describe what I believe to be the lessons of major CAB economic regulatory proceedings, and attempt to outline some preliminary conclusions.

HISTORY OF CAB REGULATION

Federal regulation of air transportation has developed primarily along two paths: one set of statutes which regulate safety, airport and airway affairs, and another specifically directed toward the regulation of the economics of air transportation. The first category of statutes has been the responsibility of the Department of Transportation and the National Transportation Safety Board for several years. The economic regulatory system which the Civil Aeronautics Board administers is now embodied by the Federal Aviation Act of 1958, as amended.

The origins of airline economic regulation are usually traced to the Civil Aeronautics Act of 1938, which generally followed the outline of the Interstate Commerce Act in setting up most of the major regulatory features of today's Federal Aviation Act. There had been partial economic regulation of air carriers prior to 1938, however. After experimenting with several different means of administering a system of subsidized air transport of mail, the Congress determined in 1930 to grant the Postmaster General broad powers over the routes, rates, and practices of carriers carrying airmail under contract with the Government. In 1935, the Congress broadened this regulation to prohibit carriers with airmail contracts from engaging in any service on routes other than their airmail routes if such service would compete with another carrier having an airmail contract on that route. The predominance of mail over passenger service was rapidly diminishing throughout this period, however, and by 1937 air carrier income from passenger service was twice as great as mail income. Unregulated carriers without airmail contracts began to compete with airmail carriers, who naturally complained about their unregulated competitors' greater economic freedom. The Interstate Commerce Commission, which obtained economic regulatory powers over motor carriers in 1935, pressed for the extension of economic regulation over all air carriers, under the general theory that it is unfair and "chaotic" for unregulated firms to be allowed to compete with regulated firms.

The protection of a subsidized airmail system was a vital objective of the drafters of the 1938 act. Even today, a very high percentage of the provisions of that act, as amended, still are concerned with the carriage of mail. Today, although the mail system is of crucial importance, it is a small percentage of the air transportation business. There certainly would be no logical basis today for designing the entire air transportation system around the mail system, because the needs of the Postal Service can be met with relatively small and specific modifications to the larger air system.

Just as the "chaotic" conditions generated by the efforts to develop an airmail system have disappeared today, we no longer experience

two other very important factors which led to the creation of airline economic regulation in 1938. The Great Depression had shaken our society's confidence in the free market system, and led to a number of laws which substituted direct Government economic regulation of business organizations for the maintenance of free competition. Also, air transportation in the 1930's was thought to suffer from undue division of governmental regulatory authority among the Commerce Department, the Post Office Department, and the Interstate Commerce Commission, and it was considered a very important function of the 1938 act to combine and coordinate all of these functions within one agency.

The drafters of the act, however, vehemently denied any intention to allow the Board to restrain competition or create monopolies. The act itself directed the Board to maintain "competition to the extent necessary" to pursue other rather inclusive goals, and explicitly directed the Board to observe conventional antitrust principles in deciding merger and interlocking control cases.

The act's reliance upon competition among air carriers shows that the Congress clearly did not regard air transportation operations as having "natural monopoly" characteristics which required Government control in the place of the discipline of competition. Instead of detailed control of the rate base, regulation was extended to fares, entry and exit from specific routes, and agreements and mergers.

MERGERS—REASONS FOR

The first category of major CAB economic cases are those in which the basic structure of the airline industry itself was at issue. In the last 15 years, the Department of Justice has opposed three major trunk air carrier merger proposals, which had they been approved, would have substantially redrawn the route map of the U.S. domestic system, and considerably increased the already very great concentration of the airline industry in the hands of a very few large trunk air carriers.

Since 1962, we have opposed before the Board the proposed mergers of American with Eastern, Western with American, and National with Northwest.

In the last few years, the Department also has studied several other major airline merger proposals which were never filed and litigated at the CAB.

As a result of studying, testing, and arguing the evidence in these cases, we have come to the conclusion that in the absence of economic regulation, the air transportation industry probably would have a reasonably flexible, competitive structure which would serve the public better than the present Government-controlled structure. Experience under economic regulation, and in unregulated air transportation where available, indicates that the industry tends to have a "competitive" structure, rather than being a "natural monopoly" which must be regulated in the interests of the public.

Evidence is quite abundant that there are no important economies of scale in air transportation; that is, larger firms are not more efficient or less costly simply because of their size. In fact, other things being equal, the largest air carriers tend to have a higher level of unit costs.

and there are some indications that these increased costs are caused by the difficulties of managing an airline of very large size.

The airlines' "right-of-way" is the air itself, and their "tracks," if any, are the air traffic control guideways maintained by the Federal Government. Well over 80 percent of the airlines' investment is in flight equipment, which is among the most mobile of assets, rather than in fixed assets, as is the case in the classical "natural monopoly." Not only does this make competitive service economically feasible, but it makes duplication of routes far less risky, because competitors can more easily adjust their operations by rescheduling an aircraft from one city-pair to another—assuming that the Government does not prevent them from doing so.

In view of this conclusion, why have so many mergers been proposed? Perhaps the most important reasons for mergers among the regulated air carriers have been the effects of regulation itself. Air carriers know that when they hold a certificate, it is the nature of economic regulation that the Board will to a greater or lesser degree protect them from entry by new competitors on that route. Similarly, the air carriers know that they cannot expand onto a new route without obtaining a certificate. Consequently, any certificated air carrier, no matter how poorly run and how debilitated financially and operationally, has one very valuable asset—its route certificate. This asset typically has been sold by merger of weak carriers into stronger carriers. As a result, no large federally certificated air carrier has gone out of business other than through merger with another federally certificated air carrier. Because the Board has allowed virtually no new firms to join the ranks of the certificated air carriers, there has been a steady diminution in the number of air carriers with certificates from the Federal Government.

It has been observed that during the period when California intrastate airlines were essentially free from economic regulation, many firms entered and left the market, but none of them left the market through merger. One very careful economic study of this phenomenon, and the contrast between unregulated California airlines and the regulated interstate airlines makes a convincing and apparently un rebutted case that in the absence of economic regulation there probably would have been many more competing airlines in the United States than the CAB has allowed to exist.

As long as new certificates are not freely given, one would expect that there would be some transfer of certificates as carriers seek to reorganize their route authorities. However, sale or trade of certificate authority has been fairly rare, although not unprecedented, because until lately the Civil Aeronautics Board did not encourage such "trafficking in certificates." Recently, the Board's willingness to consider transfer of certificate authority has led to a number of "route swap" proposals. Generally speaking, route transfers—including the reciprocal route transfers currently called route exchanges—are merely partial mergers. Consequently, as with mergers, there would be far fewer route transfers, if any, in the absence of entry restrictions.

Other asserted reasons to regulate entry and exit from air transportation markets are that without such regulation, there would be "destructive," or predatory conduct by airline firms, and "chaotic" conditions would constitute a serious public detriment. Let us examine these fears in turn.

UNFAIR COMPETITION

In order for predatory conduct to pay off, it is necessary for a firm to go through two processes: First, it must drive competitors from the market by using predatory practices, such as below-cost price cuts. This kind of conduct is costly to the would-be predator. Second, the predator must recoup those costs by using the resulting freedom from competition to behave like a monopolist. This second step will not be possible if the firms which were driven out can reenter the market quickly and easily. As I have explained, entry into air transportation markets generally would not be difficult to accomplish quickly if there were no Government restriction. Accordingly, the economists who have written on this matter have concluded that the prospects for profitable predatory conduct are poor in this industry. Given these economic facts, Government regulation of entry actually can cause the predatory conduct it is supposed to prevent. A Government prohibition on entry can be the most effective insurance possible for a predator which is trying to recoup the costs of predatory conduct.

SERVICE COMPETITION

Of course, if predatory conduct should take place in the airline industry, it is subject to the antitrust laws just as it is in another industry, if it is not somehow immunized by Government action. In terms of pricing policy, the key point here is that the economic characteristics of the airline industry are such that even when the Government eliminates price competition, carriers still have the incentive to compete, and will compete any way they can, if only through "frills" which are less important to passengers than price. Once a flight is scheduled, the cost of carrying additional passengers in the airplane is very low compared to the cost of flying the airplane in the first place. Thus, the marginal passenger on a flight is very profitable—any competitive initiative which diverts passengers onto an airline's flight may pay off richly.

In scheduled service, it appears that next to price, the variable most important to the passenger on a scheduled airline flight is the ability to find a seat on a flight at or near his preferred departure time. Consequently, when the price is fixed, competitive rivalry is diverted into capacity competition—competing carriers offer large numbers of flights in an attempt to cover as many preferred departure times and attract as many customers as possible. The evidence in the recent capacity reduction agreements case is quite convincing that, even under the present system of uniform fares, carriers do not have the incentive to offer ruinous amounts of capacity simply because of this phenomenon. But it is clear that fare regulation has caused the airlines to offer the consumer large numbers of flights and empty seats instead of cheaper transportation. Stated another way, they have tended to "compete away" the "monopoly profits" generated by excessively high regulated fares.

EVALUATION OF THE DOMESTIC PASSENGER FARE INVESTIGATION

Allowing price competition by the airlines would give them an incentive to offer consumers a choice as to the combination of fare and

load factor they want, and all the evidence is that the result would be that lower fares would be available to the users of scheduled interstate flights. The experience of the intrastate carriers in California and Texas confirms this. Of course, higher load factors also would be involved—but all this tells us is that the public would rather pay considerably less for travel, even at the price of being somewhat less certain of getting on their first choice of flight. Accordingly, we were disappointed when the Board rejected the arguments of the Departments of Transportation and Justice in favor of allowing air carriers to price freely within a “zone of reasonableness” instead of requiring a rigid adherence to one identical fare for all carriers offering service in a particular market.

We were gratified that the Board decided in Phase 6 of the Domestic Passenger Fare Investigation to base its fare decisions upon load factor and seating configuration standards which excluded from the rate base any service amenity not included in the Board’s standards for such service. Under the Phase 6 policy, the fare is based on the amount of capacity associated with a standard load factor, in a standard aircraft configuration set by the Board, rather than the actual load factor and configuration of a particular carrier or the industry. We believe this approach can allow carriers greater freedom to experiment with different levels of capacity and types of service without being deprived of the motive to keep their services as economical as possible. In Phase 6 and the related coach lounge proceeding, we argued that the Board violated the spirit of its Phase 6 policy by attempting to punish a carrier offering a different type of service by requiring that carrier to charge a different fare, rather than simply requiring that carrier to charge a fare based upon the more economical aircraft configuration which the Board adopted as its standard. This was the first proceeding in recent years in which we carried our disagreement with the Board to the court of appeals, and this matter is now pending rehearing en banc on the Board’s motion after a decision favorable to our position.

We also have pending in the court of appeals a review of the Board’s decision to extend rate regulation to the charter field for the first time, despite numerous arguments in opposition.

The Board generally has applied a specific “rule of reason” standard when it decides whether or not to approve an agreement which restrains competition. That is, if an agreement would have substantial anticompetitive effects under established antitrust principles, it will not be approved unless approval is the only way to meet a serious transportation need or secure important public benefits. Until very recently, the Department of Justice has not participated in very many proceedings concerning air carrier conduct subject to regulation by the Civil Aeronautics Board. In recent years, we have opposed capacity restraint agreements which have been in effect in several markets on the basis of various purported justifications. The capacity agreement question, too, is pending in the court of appeals.

CAB POWER TO GRANT ANTITRUST IMMUNITY

Let me if I might go into detail briefly on the issue of antitrust immunity, which is one of the questions that will be rising later here.

Under the present aviation act, the Board has power to approve or disapprove mergers (section 408), control relationships (section 409),

and agreements among air carriers (section 412). Section 414 of the Federal Aviation Act provides that the antitrust laws shall not apply to persons affected by CAB orders issued under these three sections of the act, to the extent "necessary to enable such person to do anything authorized, approved, or required by such order." (40 U.S.C. 1384.) The public interest would be better served if each of the three types of transactions as to which the Board can confer immunity were evaluated under the standards of the antitrust laws, rather than the general "public interest" rubric of an administrative agency.

It would be desirable to remove the antitrust immunity provisions of section 414 even if these three types of transactions remain subject to administrative review. This would insure that the administrative agency would not follow a less procompetitive standard than that of the antitrust laws; the safest way to do this is to eliminate any inference that the Board's approval brings immunity from an antitrust lawsuit.

The existence of the section 414 immunity provision creates the possibility of a lowering of competitive standards not only in the regulated air transportation industry, but also in industries not regulated by the CAB. In a recent decision, the Supreme Court held that a private antitrust action against Hughes Tool Co., a person engaged in aeronautics, was barred by the Board's approval of and continuing jurisdiction over the control relationship which was the basis of the antitrust complaint. The antitrust complaint had centered upon the approved transactions' competitive effects in the commercial aircraft manufacturing industry, not in the air transportation industry which is regulated by the Board.

If any special characteristics of air transportation require departure from the undiluted application of the antitrust laws, such departure should be effected by a procedure similar to that of the Bank Merger Act of 1966. Under that statute a specialized regulatory agency first passes upon whether a merger would violate the antitrust laws, and whether it should nevertheless be allowed because of specific overriding public benefits which could not be obtained by any other means. The transaction is then subject to de novo review by the United States in a district court.

Let me if I might now, Mr. Chairman, just very briefly address several conclusions.

There are a variety of problems that we have addressed in the statement. The Department of Justice and other litigants sometimes can help maintain a degree of reliance on competition, but under no circumstances do we believe such litigation brings optimum results. Parties seeking to influence the Civil Aeronautics Board toward more competitive policies are hampered by the vagueness and inclusiveness of the statutory standards among which the Board may choose to justify its decisions, and are hampered by judicial restraint in reviewing crucial aspects of agency decisionmaking. This is exacerbated by the very serious costs and delays of litigating economic issues, both before the Board and in the courts.

These problems will be dealt with in greater detail in later sessions of these hearings. It will suffice to say now that we do not believe the serious problems of air transport economic regulation will be satisfactorily corrected by litigation under present statutory standards, although such litigation can help somewhat.

Neither do we believe that the optimum answer lies in the reform of procedures under which air carrier economic regulation is carried out. Unnecessary regulation is still expensive, even if carried out under clear standards and optimum procedures. It would be possible to have a much narrower statute seeking specific goals with definite safeguards for competition and economic efficiency. In air transportation, the fundamental goal would be the provision of efficient air transportation to the public by qualified common carriers using safe planes and qualified crews. A tightly drawn statute would prevent the Board from limiting competition unless it is made findings on the record that competition would compromise safety or reliability of service. Even under such a statute, the problem of preventing regulation from pursuing other, anticompetitive goals might prove difficult.

Specifically, we believe that new legislation should move toward the following goals. First, entry and exit restrictions should be greatly liberalized. Second, rate flexibility should be introduced through a phased process, perhaps initially using a zone of reasonableness. Regulatory intrusion with regard to rates within that zone would not be permitted. Finally, existing antitrust immunity should be removed, along the lines suggested earlier in this statement.

There is a broad consensus that reform must proceed along all three of these fronts. The administration has thus concluded that it would be appropriate to move toward much more reliance upon competition in the air transportation industry, and much less reliance upon Government economic regulation. We expect to present specific legislative proposals within a short time to the Congress, and specifically to this committee.

Thank you, Mr. Chairman.

Senator KENNEDY. Thank you very much. We will include all of your statement in the record.

Senator KENNEDY. Do I understand your position correctly that you would eliminate all antitrust exemptions?

Mr. KAUPER. Well, I think there are several parts of that which are still under some review as to precisely how it should be done. Our thinking at the moment is that there may be some forms of agreements where a procedure not unlike the Bank Merger Act, pursuant to which the matter is passed upon by the administrative agency, but then subject to challenge by us in the U.S. district court, may be the best way of identifying those particular agreements where there seems to some peculiar transportation need, where perhaps under conventional antitrust analysis, there might otherwise be a problem.

I think it is true that a number of kinds of agreements which we, the administration, feel should be accepted, probably in and of themselves do not violate the antitrust laws in any event.

However, I think one does have to keep in mind that among other things we are a litigious country, and it may be in a few cases the protection provided by that sort of immunity is desirable for that reason. We are working those detailed provisions out. They will be part of the proposals coming before you.

Senator KENNEDY. Proposals made by whom?

Mr. KAUPER. By the administration, as part of the whole series of administration proposals dealing with deregulation in this area.

Senator KENNEDY. When are we going to have those?

Mr. KAUPER. I think the specific timeframe is about 6 weeks; at least I think that is about the frame we are working on now.

Senator KENNEDY. And you will spell out, then, as I understand it, the legislation to carry this forward?

Mr. KAUPER. Yes, it is our expectation, Mr. Chairman, those will be in the form of legislative proposals.

Senator KENNEDY. Are you satisfied with the opportunity for the antitrust division to participate in the regulatory agencies' decision-making?

Mr. KAUPER. Well, I think we have been able to participate in the sense of being a formal party. That is, when there is a particular proceeding, our views are submitted. We have, as I think you know, Mr. Chairman, put a good deal of time and effort and resources into exactly that sort of thing. So that I do not think—let me put it this way—I do not think the agency is suffering from any want of knowledge of our views. In fact, they probably have them more than they would care for them.

Senator KENNEDY. I suppose the real question is the power to have an impact on the decision.

Mr. KAUPER. Well, I think that is a somewhat different question. Obviously in a variety of these areas, once the agency has arrived at its decision, the ballgame is in large part over from our point of view. That is, at that point, it has become a question of antitrust immunity. There are some instances in which we may be able to proceed into the appellate courts. That is still a matter of doing it by way of review of the agency decision, with all the appropriate weight an appellate court gives to an agency determination.

So I think the suggestion is that we follow a procedure that would contemplate that we ourselves would have an independent ability to go to court. I think that is what is necessary. There is implicit in that, in terms of our powers, that they are not adequate at the present time.

Senator KENNEDY. Are you going to recommend that Congress give you more power in this?

Mr. KAUPER. Yes, I think that would be one result of the proposal.

Senator KENNEDY. Can you give us a little bit better idea how the consumers' interests will be served with this opportunity that you describe here?

Mr. KAUPER. Well, I think, Mr. Chairman, it is our feeling the consumer usually benefits in a whole variety of ways through competition, and I suppose that variety would be present here. We would anticipate lower fare levels. We also contemplate that the consumer would have some choice, which in large part he does not today have. He does not have a choice as to whether he wants a meal served to him on a given plane or whether he does not. He is going to pay for it in any event. He does not have any choice on the fare structure.

So I would expect we would see improvement not only when he pays, but in the choices available to him. Those are the normal results of competition, and I see no reason why we would see anything different here.

Senator KENNEDY. Well, if this is carried forward, you do not think it will make it more difficult for the airlines to make agreements with regards to passenger interests, such as common baggage handling for connecting flights and reservation systems?

Mr. KAUPER. It should not make those things more difficult. We are as concerned as anybody that the joint operations which are in existence and provide a continuity of service to the passenger be continued. That is not the major concern of our proposal.

Senator KENNEDY. Do they need antitrust exemptions for those agreements?

Mr. KAUPER. I think there are many kinds of agreements, and many of them probably do not. There may be some kind of arrangement with respect to the use of airports, for example, that might lend themselves to antitrust complaints, that might technically be a refusal to deal or so on that might invite a challenge by a third party.

Generally, there is a pretty good consensus as to the nature of these agreements, and it is simply the right of the mechanics of doing it. There is not any particular disagreement over their nature or whether they should be permitted.

Senator KENNEDY. What are you doing about international rate-setting?

Mr. KAUPER. I did not come up here today with all of the preparation on international affairs, but I think what we are doing at the moment is participating in additional administration efforts to try to reexamine these policies. It is a considerably more complicated process and that is one of the reasons we have not addressed that. It is complicated by the bilateral arrangements between governments with respect to air carriers and a variety of things that make that a more complex matter. I think all I can say on that today, Mr. Chairman, is there is additional work going on on the whole international structure and the fare-making process. I would hope there would be some additional recommendations coming out of that.

Senator KENNEDY. Do you believe that this system is really a sort of price-fixing cartel?

Mr. KAUPER. Well, I do not think there is any way one could not call it a price-fixing cartel. It is quite clearly that. It is an agreement among airlines with respect to fares. Whether or not there are reasons for that particular structure, where, after all, you do not have a single government in charge of regulation, but certainly it functions just as any other cartel would in setting fares. In any classic definition of cartel, I would suppose it is one.

Senator KENNEDY. OK.

I want to thank you very much.

Mr. KAUPER. Thank you, Mr. Chairman.

[The prepared statement of Mr. Kauper follows:]

PREPARED STATEMENT OF THOMAS E. KAUPER, ASSISTANT ATTORNEY GENERAL,
ANTITRUST DIVISION, DEPARTMENT OF JUSTICE

Airline Regulation by the Civil Aeronautics Board

Mr. Chairman, I am happy to be here today to present the views of the Department of Justice and to report on the work that the Administration is doing on economic regulation of domestic air transportation.

Airline regulation needs review at this time. For 37 years, we have operated under a statutory arrangement which assumed that airlines were like railroads, requiring extensive rate and entry regulation; that subsidized mail carriage was a dominant concern; and that the airline business was an industry requiring special government promotional efforts on its behalf. We all know that much has happened during those 37 years. We know that airlines are not like railroads, that

open competition and entry policies have worked in California and Texas to produce higher load factors and lower fares. We know that the airlines have become the leading source of public inter-city transport and that the mail business is utterly dwarfed by passenger business.

Airline costs affect us all as citizens, taxpayers and consumers. They affect us when we buy products, when we carry out our jobs, and when we travel for pleasure.

Airline costs are in turn directly affected by airline regulation—for it is regulation which tells carriers on which routes they can compete and what means of competition they can use. Basically, it keeps entry tight, while allowing carriers to compete in terms of service but not price. The result is, as you would expect, a system which sets both price and service at levels above what they would be in a competitive market, in other words, there are more planes, with more empty seats, and the customer pays more than he would under a regime of open competition. Thus, competitive operations in California have generally produced fare levels that were 40 percent lower than the CAB approved fare level, while the carriers have enjoyed considerably higher load factors.

For years, nobody much worried about CAB price and entry policies, because we were in a continuing trend of improving equipment, declining cost, declining prices and rapidly growing traffic. The airline traveler's world was getting better, even though CAB rate and entry regulation was probably slowing down at least the rate at which fares declined, and encouraging excess capacity.

Now, however, the situation has changed. Due to sharply higher fuel and labor costs, airlines have requested, and the Board has approved, a whole series of fare increases, which have come at a time when the public at large was if anything less able to pay these fares. At the same time, the Board has actively sought to cut back on low-price air travel, through limitations on promotional fares and restrictions on charter activity. The result of all this has been to raise fares considerably for everyone and to raise them enormously for certain classes of users. The overall effect has been to produce an almost unprecedented substantial reduction in air travel—more empty seats on scheduled flights and fewer charter flights. The reduction in demand has tended to push up the airlines' unit costs, since they have had to spread out their fixed costs over fewer passengers. This in turn has provided the impetus for renewed fare increases, a situation likely to further reduce air travel and hence again increase unit costs. The resulting spiral of increasing fares and costs means that the smaller proportion of the public which can afford to fly gets reduced service at increased prices.

We in the Administration have been studying for some time how to break out of this upward spiral of prices and costs. We have concluded that the most hopeful avenue is a substantial relaxation of existing price and entry regulation, which forces, or at least strongly urges, carriers to offer excessive amounts of unused seats at excessively high fares. That system of regulation has in addition prevented innovative newcomers from coming into the business of interstate air transportation, in the interest of protecting the established carriers against new competition. We believe that more open competitive pricing, if given a chance, would broaden the carriers' entrepreneurial opportunities by giving them a chance to compete with lower fares as well as with extra seats. We believe that it would tend to bring interstate air transportation more into line with what we saw in California and Texas: an environment of lower fares and fuller planes. If this occurs—and both actual experience and economic theory suggest that it will—we will have found a basis for breaking the cycle of rising costs and declining service. Lower prices are likely to come quite quickly and lower prices are likely to encourage new traffic quite quickly. By the same token, liberalized entry rules—an environment with less emphasis on route protection—are likely to get onto the routes those carriers who are most efficient at serving them. In a competitive environment, such efficiencies can in turn be passed on to the traveler in the form of lower fares.

The Department's perspective on airline regulatory problems is based of course on our experience in enforcing the antitrust laws in a great variety of industries having a diversity of cost and capital characteristics. It is based on our extensive participation before the CAB in a variety of proceedings. And it is based on our experience in antitrust enforcement in other regulated industries, some of which have economic characteristics similar to those of air transportation. Our experience tells us that regulated firms rarely welcome freer entry rules and more flexible pricing. They generally want to be protected from outsiders and protected from each other by a benevolent regulator. In the airline field, regulated firms

generally have opposed pricing flexibility and offered capacity cartel agreements instead. Yet our experience also tells us that in fact competition works in regulated environments much more efficiently than the regulated firms generally believe; and we find increasing use of competition in place of direct regulation as a tool to promote efficiency in a number of regulated environments, ranging from wholesale electric power to securities markets.

The Department is currently working with the Department of Transportation, the Council of Economic Advisers, the Council on Wage and Price Stability and the Office of Management and Budget to develop detailed Administration proposals which respond to this reality in the transportation sector. We hope to have detailed proposals for air transport regulation reform for presentation to the Congress in the near future. At this point, these agencies have arrived at a broad consensus in principle, which we will discuss today.

We all agree that regulation of rates and routes has been excessive and has inflated present cost and fare levels.

We believe the government should regulate the airlines where necessary to ensure the safety and reliability of air transportation—but this clearly does not require direct government regulation of airline pricing and entry to the current extent. We believe the focus of government regulation of the airlines should be on these essentially noneconomic goals, with clear standards and procedures which ensure that regulatory powers are not used to unnecessarily limit competition. Even if full rate regulation is deemed necessary to deal with certain problems—for instance, the prevention of monopoly pricing in certain markets—such regulation should be carefully crafted to limit and clarify goals, standards and procedures.

The present Federal Aviation Act does not identify limited specific economic goals and set forth standards and procedures to achieve those goals and avoid undesirable side effects. Rather, it offers the Board an open-ended mandate, which can be—and frequently is—used to protect carriers rather than the traveling public, and to protect operating inefficiencies which ultimately must be paid for by the public.

Reform only of procedural (rather than substantive) provisions of the Act cannot correct the fundamental problem of its ambiguous and sometimes conflicting stated objectives.

Procedural reform of the Act might well be desirable, but it is not likely to be successful without a narrowing and clarification of the standards the Board may apply in making economic decisions, and of the scope of airline activities subject to those decisions. Such a redefinition of the Act's economic goals and standards would be a substantial improvement. And in our view, such a redefinition would call into question the continued usefulness of much of present economic regulation.

The Administration group also agrees that the CAB should not be given broad authority to immunize from the antitrust laws all the private agreements and mergers it approves. Accordingly, our proposals will provide for a much narrower area of antitrust exemption, and for a merger approval approach generally modeled on the Bank Merger Act of 1966 (which allows the courts to adjudicate the legality of a merger under the antitrust laws, subject to agency participation on broader public interest issues).

To explain the basis for these rather broad conclusions, I will sketch briefly the circumstances which led to the imposition of federal economic regulation of the airlines, describe what I believe to be the lessons of major CAB economic regulatory proceedings, and attempt to outline some preliminary conclusions.

I. A BRIEF HISTORY OF FEDERAL ECONOMIC REGULATION OF AIR TRANSPORTATION

Federal regulation of air transportation has developed primarily along two paths: one set of statutes which regulate safety, airport and airway affairs, and another specifically directed toward the regulation of the economics of air transportation. The first category of statutes has been the responsibility of the Department of Transportation and the National Transportation Safety Board for several years.¹ The economic regulatory system which the Civil Aeronautics Board administers is now embodied by the Federal Aviation Act of 1958, as amended.²

¹ Federal Aviation Act of 1958, 72 Stat. 731, 49 U.S.C. 1301 et seq.; Department of Transportation Act 1966, 80 Stat. 931, 49 U.S.C. 1651.

² Id.

The origins of airline economic regulation are usually traced to the Civil Aeronautics Act of 1938,³ which generally followed the outline of the Interstate Commerce Act in setting up most of the major regulatory features of today's Federal Aviation Act. There had been partial economic regulation of air carriers prior to 1938, however. After experimenting with several different means of administering a system of subsidized air transport of mail, the Congress determined in 1930 to grant the Postmaster General broad powers over the routes, rates, and practices of carriers carrying air mail under contract with the government.⁴ In 1935, the Congress broadened this regulation to prohibit carriers with air mail contracts from engaging in any service on routes other than their airmail routes if such service would compete with another carrier having an airmail contract on that route.⁵ The predominance of mail over passenger service was rapidly diminishing throughout this period, however, and by 1937 air carrier income from passenger service was twice as great as mail income.⁶ Unregulated carriers without airmail contracts began to compete with airmail carriers, who naturally complained about their unregulated competitors' greater economic freedom.⁷

The Interstate Commerce Commission, which obtained economic regulatory powers over motor carriers in 1935,⁸ pressed for the extension of economic regulation over all air carriers,⁹ under the general theory that it is unfair and "chaotic" for unregulated firms to be allowed to compete with regulator firms.¹⁰

The protection of a subsidized airmail system was a vital objective of the drafters of the 1938 Act. Even today, a very high percentage of the provisions of that Act, as amended, still are concerned with the carriage of mail. Today, although the mail system is of crucial importance, it is a small percentage of the air transportation business. There certainly would be no logical basis today for designing the entire air transportation system around the mail system, because the needs of the postal service can be met with relatively small and specific modifications to the larger air system.

Just as the "chaotic" conditions generated by the efforts to develop an airmail system have disappeared today, we no longer experience two other very important factors which led to the creation of airline economic regulation in 1938. The Great Depression had shaken our society's confidence in the free market system, and led to a number of laws which substituted direct government economic regulation of business organizations for the maintenance of free competition. Also, air transportation in the 1930's was thought to suffer from undue division of governmental regulatory authority among the Commerce Department, the Post Office Department, and the Interstate Commerce Commission,¹¹ and it was considered a very important function of the 1938 Act to combine and coordinate all of these functions within one agency.¹² Thus, the 'caotic and destructive' conditions which frequently are thought to be the 1938 Act's genesis are now only a matter of history.

As this history indicates, airline regulation must be viewed against the particular background of the circumstances which created it in order to understand its goals. Various parties involved in the drafting and passage of the original 1938 Act made references to their desire to allow regulation of "chaotic" competition among air carriers, and given the above description of the Act's historical context, such as desire seems understandable. The drafters of the Act, however, vehemently denied any intention to allow the Board to restrain competition or create monopolies.¹³ The Act itself directed the Board to maintain "competition to the extent necessary" to pursue other rather inclusive goals,¹⁴ and explicitly

³ 52 Stat. 973.

⁴ 46 Stat. 259 (1930).

⁵ 49 Stat. 619.

⁶ C. S. Rhyne, *The Civil Aeronautics Act Annotated* (1939), p. 35.

⁷ *Id.* 32-33.

⁸ Motor Carrier Act of 1935, 49 U.S.C. 301 et seq.

⁹ Rhyne, *supra*, 32-33.

¹⁰ The ICC advanced similar arguments with respect to competing surface modes. Boies, *Experiment in Mercantilism: Minimum Rate Regulation by the ICC*, 68 Colum. L.R. 599, 614-15; J. Meyer, M. Peck, J. Stenason, C. Zwich, *Economics of Competition in the Transportation Industries* 10 (1964); Report of the Attorney General's National Committee to Study the Antitrust Laws 269 (1955); *Coordination of Motor Transportation*, 183 ICC 263 (1932).

¹¹ As noted above, certain of the noneconomic regulatory functions conferred upon the CAB's predecessor agency were later transferred to other agencies. See note 1, *supra*.

¹² H. Rept. No. 2254, 75th Cong., 3rd Sess., April 28, 1938; 83 Cong. Rec. 5960.

¹³ 83 Cong. Rec. 6729-32.

¹⁴ Section 1, 49 U.S.C. sec. 1301.

directed the Board to observe conventional antitrust principles in deciding merger and interlocking control cases.¹⁵

The Act's reliance upon competition among air carriers shows that the Congress clearly did not regard air transportation operations as having "natural monopoly" characteristics which required government control in the place of the discipline of competition. Unlike the usual statute regulating a "natural monopoly," the Act does not require, but rather prohibits, government control of the regulated firms' investment in equipment or facilities, and of the specific services they provide under their certificates.¹⁶ Instead of detailed control of the rate base, regulation was extended to fares, entry and exit from specific routes, and agreements and mergers.

Other characteristics of the original 1938 Act seem to have been included largely because the Interstate Commerce Act was taken as a model. Thus the 1938 Act prohibited discrimination, preference or prejudice among various users of air transportation, required joint fares for connecting traffic, and allowed classification of regulated air carriers into various categories.

II. THE LESSONS OF MAJOR CAB ECONOMIC PROCEEDINGS

With that background on the origins of the present Act, I will now turn to the way it has been administered, and what we have learned in the process.

Market structure

The first category of major CAB economic cases are those in which the basic structure of the airline industry itself was at issue. In the last 15 years, the Department of Justice has opposed three major trunk air carrier merger proposals,¹⁷ which, had they been approved, would have substantially redrawn the route map of the U.S. domestic system, and considerably increased the already very great concentration of the airline industry in the hands of a very few large trunk air carriers.

In 1962, we opposed the proposed American-Eastern merger before the Board. The hearing examiner ruled in our favor, finding that consummation of the merger would create an airline with more than one-third of the entire domestic airline industry's business, greatly increase existing economic concentration in the airline industry, create a regional monopoly in the northeastern United States, and create numerous city-pair monopolies within that region. The merger proposal was subsequently withdrawn.

Ten years later, the Department opposed the merger of Western Airlines with American on similar grounds, although there was very little actual overlap between the American and Western systems. The hearing examiner recommended disapproval, essentially on nonantitrust grounds, and the merger was withdrawn after the Board issued an order disapproving it.

A merger proposal between National Airlines and Northwest Airlines, which we opposed on the grounds that it would increase concentration in the trunk airline industry and destroy important potential competition between the two merger partners, also was withdrawn after the hearing examiner issued a decision recommending disapproval on antitrust grounds. In the last few years, the Department also has studied several other major airline merger proposals which were never filed and litigated at the CAB.

These merger proposals have raised very serious questions as to the proper structure of the industry, both as to the need for the proposed merger and as to its likely effect on competition and other important economic processes. As a result of studying, testing and arguing the evidence in these cases, we have come to the conclusion that in the absence of economic regulation, the air transportation industry probably would have a reasonably flexible, competitive structure which would serve the public better than the present government-controlled structure. Experience under economic regulation, and in unregulated air transportation where available, indicates that the industry tends to have a "competitive" structure, rather than being a "natural monopoly" which must be regulated in the interests of the public.

¹⁵ Section 408(b), 49 U.S.C. sec. 1378.

¹⁶ Section 401(e)(4), 49 U.S.C. sec. 1371.

¹⁷ See American-Eastern Merger, Recommended Decision of Hearing Examiner Ralph L. Waser, docket 13355, November 27, 1962; American-Western Merger Case, orders 72-7-91 and 72-7-92, and docket 22916, June 13, 1972; Northwest-National Merger Agreement, Recommended Decision of Associate Chief Examiner Robert L. Park, docket 23852, May 22, 1972.

Evidence is quite abundant that there are no important economies of scale in air transportation; that is, larger firms are not more efficient or less costly simply because of their size. In fact, other things being equal, the largest air carriers tend to have a higher level of unit costs, and there are some indications that these increased costs are caused by the difficulties of managing an airline of very large size.¹⁸

The reasons for this are apparent—the airlines' "right of way" is the air itself, and their "tracks" if any, are the air traffic control guideways maintained by the Federal Government. Well over 80 percent of the airlines' investment is in flight equipment, which is among the most mobile of assets, rather than in fixed assets, as is the case in the classical "natural monopoly."¹⁹ Not only does this make competitive service economically feasible, but it makes duplication of routes far less risky, because competitors can more easily adjust their operations by rescheduling an aircraft from one city-pair to another—assuming that the government does not prevent them from doing so.

In view of this conclusion that air carriers will not become more efficient or more profitable by merging to become larger, why have so many mergers been proposed? Perhaps the most important reasons for mergers among the regulated air carriers have been the effects of regulation itself. Air carriers know that when they hold a certificate, it is the nature of economic regulation that the Board will to a greater or lesser degree protect them from entry by new competitors on that route. Similarly, the air carriers know that they cannot expand onto a new route without obtaining a certificate. Consequently, any certificated air carrier, no matter how poorly run and how debilitated financially and operationally, has one very valuable asset—its route certificate. This asset typically has been sold by merger of weak carriers into stronger carriers. As a result, no large federally certificated air carrier has gone out of business other than through merger with another federally certificated air carrier. Because the Board has allowed virtually no new firms to join the ranks of the certificated air carriers, there has been a steady diminution in the number of air carriers with certificates from the Federal Government.

It has been observed that during the period when California intrastate airlines were essentially free from economic regulation, many firms entered and left the market, but none of them left the market through merger. One very careful economic study of this phenomenon, and the contrast between unregulated California airlines and the regulated interstate airlines makes a convincing and apparently un rebutted case that in the absence of economic regulation, there probably would have been many more competing airlines in the United States than the CAB has allowed to exist.²⁰

As long as new certificates are not freely given, one would expect that there would be some transfer of certificates as carriers seek to reorganize their route authorities. However, sale or trade of certificate authority has been fairly rare, although not unprecedented, because until lately the Civil Aeronautics Board did not encourage such "trafficking in certificates." Recently, the Board's willingness to consider transfer of certificate authority has led to a number of "route swap" proposals.

When there is limited entry, we believe that transfers of certificate authority very well may provide a practical means of reorganizing certificated route authority in a form more closely aligned with the economic or operational requirements of the air transportation system. The carriers' objective in a route swap is, of course, to increase profits. In cases where the increase in profits would take place because the route can be served more efficiently as part of the transferee's route system, we believe the transfer of authority may well be in the public interest.

The motive for a route transfer, however, may be to eliminate competition, as where two carriers both possess authority on a given route, and one proposes to

¹⁸ In the American-Western Merger Case, docket 22916, see exhibits DOT-T-1; CO-RT-500, pp. 7, 16-24; CO-R-512-517; CO-R-528-529; RW-120-125; RW-SR-900; BOR-R-100. In the National-Northwest Merger Case, docket 23852, see exhibits DOT-T-1, DJ-1, DJ-RT-1, and Transcript pp. 1412-13.

The numerous academic studies in this area apparently all conclude that there are no economies of scale in the airline industry above the size of the very smallest air carriers. See sources cited in G. Douglas and J. Miller, *Economic Regulation of Domestic Air Transport* (1974), pp. 14-15, and W. Jordan, *Airline Regulation in America* (1970), pp. 191-194.

The Board itself has endorsed in general terms the conclusion that there are constant returns to scale in the industry. Domestic Passenger Fare Investigation, phase 5—Discount Fares, order 72-12-18 (December 5, 1972), p. 48.

¹⁹ American-Western Case, *supra*, exhibit DJ-RT-1, p. 5; see also order 72-12-18, *supra*, p. 48.

²⁰ Jordan, *supra*, pp. 14-33.

transfer its authority to the other, eliminating competition between the route swap partners on that route. In such cases the public is likely to be injured by the reduction in competition on that route. We have opposed some anticompetitive route exchange proposals, notably the American-Pan American route exchange involving Caribbean and South Pacific routes,²¹ and the Pan American-TWA agreement,²² which involves both Atlantic and Pacific routes. Generally speaking, route transfers, including the reciprocal route transfers currently called route exchanges, are merely partial mergers. Consequently, as with mergers, there would be far fewer route transfers, if any, in the absence of entry restrictions.²³

We have seen that the "natural monopoly" argument for regulating entry and exit finds no support in the facts of air transportation economics. Other asserted reasons to regulate entry and exit from air transportation markets are that without such regulation, there would be "destructive," or predatory conduct by airline firms, and "chaotic" conditions would constitute a serious public detriment. Let us examine these fears in turn.

In order for predatory conduct to pay off, it is necessary for a firm to go through two processes: First, it must drive competitors from the market by using predatory practices, such as below-cost price cuts; this kind of conduct is costly to the would-be predator. Second, the predator must recoup those costs by using the resulting freedom from competition to behave like a monopolist. This second step will not be possible if the firms which were driven out can reenter the market quickly and easily. As I have explained, entry into air transportation markets generally would not be difficult to accomplish quickly if there were no government restriction. Accordingly, the economists who have written on this matter have concluded that the prospects for profitable predatory conduct are poor in this industry.²⁴

Given these economic facts, government regulation of entry actually can cause the predatory conduct it is supposed to prevent. A government prohibition on entry can be the most effective insurance possible for a predator which is trying to recoup the costs of predatory conduct.

Of course, if predatory conduct does take place in the airline industry, it is subject to the antitrust laws just as it is in another industry, if it is not somehow immunized by government action.

In the New England service investigation, where the benefits of entry and exit regulation for small (and presumably relatively less stable) air carriers were directly in issue, the Administrative Law Judge found on the basis of the record that there had been no evidence of predatory behavior.²⁵ The proponents of entry and exit regulation in that case argued, and the Board agreed,²⁶ that there is a public interest in "continuity of service" which requires some entry and exit regulation. We question this result, in view of the Administrative Law Judge's uncontroverted finding that although commuter carriers had entered and exited several New England markets, there had been no significant lapses of service to the public because of this turnover.²⁷ In light of these facts, the "continuity of service" which entry and exit control brings is not an assurance of service to the public, but an assurance of tenure to the carrier. Essential public facilities such as grocery stores and pharmacies do not enjoy this type of protection from competition, and we see no reason why air carriers should.

Pricing

The Department of Justice has been very selective in participating in fare proceedings at the Civil Aeronautics Board, because the economics of the industry change rapidly enough to seriously limit the future applicability of many decisions as to specific fare levels. As a result, participation in complex proceedings on specific fares may produce considerably less important benefits than one would expect from the same expenditure of effort in a structural proceeding. The Department did participate in the Board's recent Domestic Passenger Fare Investigation (DPFI), however, because we believed the Board's decisions in that pro-

²¹ American Airlines, Inc.-Pan American World Airways, Inc. Route Exchange Agreement, docket 26245 (pending).

²² Application of Pan American World Airways, Inc. and Trans World Airlines, Inc. for Approval of an Agreement, docket 27114, et al.

²³ See American-Western Merger Case, exhibit DJ-RT-1, *supra*, pp. 6-10.

²⁴ See sources cited in A. Kahn, *The Economics of Regulation*, pp. 219-20.

²⁵ Initial Decision of Administrative Law Judge Greer M. Murphy, docket 22973, July 9, 1973, p. 75.

²⁶ Order 74-7-70, July 17, 1974; p. 15.

²⁷ Initial Decision, New England Service Investigation, *supra*, p. 75.

ceeding not only would bring important revisions in the level and structure of all domestic airline fares, but would set the rules under which that level and structure would be set for many years to come. Largely on the basis of comprehensive evidence produced by the Department of Transportation, we became convinced that airlines would be more efficient and less likely to engage in wasteful service competition—flying empty seats and piano bars—if the Board encouraged them to compete on the basis of price, instead of preventing them from doing so by fixing one fare which all carriers must charge.

The key point here is that the economic characteristics of the airline industry are such that even when the government eliminates price competition, carriers still have the incentive to compete, and will compete any way they can, if only through “frills” which are less important to passengers than price. Once a flight is scheduled, the cost of carrying additional passengers in the airplane is very low compared to the cost of flying the airplane in the first place. Thus, the marginal passenger on a flight is very profitable—any competitive initiative which diverts passengers onto an airline’s flight may pay off richly.

In scheduled service, it appears that next to price, the variable most important to the passenger on a scheduled airline flight is the ability to find a seat on a flight at or near his preferred departure time. Consequently, when the price is fixed, competitive rivalry is diverted into capacity competition—competing carriers offer large numbers of flights in an attempt to cover as many preferred departure times and attract as many customers as possible. The evidence in the recent capacity agreements case is quite convincing that, even under the present system of uniform fares, carriers do not have the incentive to offer ruinous amounts of capacity simply because of this phenomenon. But it is clear that fare regulation has caused the airlines to offer the consumer large numbers of flights and empty seats instead of cheaper transportation. Stated another way, they have tended to “compete away” the “monopoly profits” generated by excessively high regulated fares.

Allowing price competition by the airlines would give them an incentive to offer consumers a choice as to the combination of fare and load factor they want, and all the evidence is that the result would be that lower fares would be available to the users of scheduled interstate flight. The experience of the intrastate carriers in California and Texas confirms this. Of course, higher load factors also would be involved—but all this tells us is that the public would rather pay considerably less for travel even at the price of being somewhat less certain of getting on their first choice of flight. Accordingly, we were disappointed when the Board rejected the arguments of the Department of Transportation and Justice in favor of allowing air carriers to price freely within a “zone of reasonableness” instead of requiring a rigid adherence to one identical fare for all carriers offering service in a particular market.

We were gratified that the Board decided in phase 6 of the DPMI to base its fare decisions upon load factor and seating configuration standards which excluded from the rate base any service amenity not included in the Board’s standard for such service.

Under the Phase 6 policy, the fare is based on the amount of capacity associated with a standard load factor, in a standard aircraft configuration set by the Board, rather than the actual load factor and configuration of a particular carrier or the industry. We believe this approach can allow carriers greater freedom to experiment with different levels of capacity and types of service without being deprived of the motive to keep their services as economical as possible. In Phase 6 and the related coach lounge proceeding,²⁸ we argued that the Board violated the spirit of its Phase 6 policy by attempting to punish a carrier offering a different type of service by requiring that carrier to charge a different fare, rather than simply requiring that carrier to charge a fare based upon the more economical aircraft configuration which the Board adopted as its standard. This was the first proceeding in recent years in which we carried our disagreement with the Board to the Court of Appeals, and this matter is now pending rehearing en banc on the Board’s motion after a decision favorable to our position.

We also have pending in the Court of Appeals a review of the Board’s decision to extend rate regulation to the charter field for the first time, despite numerous arguments in opposition.

²⁸ Chicago-Los Angeles Fare Reduction Case, docket 25587, now pending action by the court of appeals as *Continental Airlines, Inc. v. Civil Aeronautics Board*, D.C. Cir. Nos. 73-1714, 73-1718.

Competitive Restraints

The Board generally has applied a specific "rule of reason" standard when it decides whether or not to approve an agreement which restrains competition. That is, if an agreement would have substantial anticompetitive effects under established antitrust principles, it will not be approved unless approval is the only way to meet a serious transportation need or secure important public benefits.²⁹ Until very recently, the Department of Justice has not participated in very many proceedings concerning air carrier conduct subject to regulation by the Civil Aeronautics Board. In recent years, we have opposed capacity restraint agreements which have been in effect in several markets on the basis of various purported justifications. The capacity agreement question, too, is pending in the Court of Appeals.

The capacity reduction agreement case, in which we participated in a lengthy hearing at the Civil Aeronautics Board last year, dealt with several issues of general competitive significance, and we believe the record of that proceeding casts further doubt on the need for the existing type of economic regulation in air transportation. Specifically, proponents of capacity agreements were able in that proceeding to produce virtually no evidence that carriers which flood the market with schedules tend to attract a greater proportion of passengers from their competitors, so that even under the present fixed price-no-entry conditions of the regulated air transport industry, carriers do not really have economic incentives to engage in ruinous overscheduling.

The evidence established instead that overcapacity and misallocation of capacity in the regulated air transportation system can be traced to economic regulation actions by the Board, primarily the prescription of noncompetitive fares which allow breakeven operations at low load factors, and a record of "bailing out" carriers which make improvident competitive decisions.

The capacity case was unusual in that the Administrative Law Judge ordered some very informative discovery into the decisionmaking process of the air carrier proponents of capacity restraint agreements. One fact that emerged was that if the Board were to strictly enforce its Phase 6 load factor standards, air carrier management would reduce the level of excess capacity in the industry, provided it believed that the Board would not take regulatory action to protect air carrier profits despite their failure to observe the load factor standards.³⁰ Unfortunately, the Board has on occasion acted to "bail out" individual carriers which get into trouble; the carriers know this, and they act accordingly. Thus, even an enlightened and potentially effective regulatory policy such as the Board's load factor standard can be impaired or negated by the regulator's natural and perhaps inevitable proclivity to protect the firms it regulates.

The capacity agreement case also illustrates another generic problem with economic regulation: these anticompetitive agreements were instituted not in markets where any economic problem existed, but in the largest, more profitable markets of the largest air carriers.³¹ Such anticompetitive restraints were necessary, argued the Board's Bureau of Operating Rights, in order to produce higher than normal profits, in some markets, profits which in theory could be used to cross-subsidize markets in which average profits could not be obtained.³²

Arguments that the Civil Aeronautics Board should effect a sub rosa tax upon one class of consumers for the benefit of another illustrate, we believe, the unfortunate results of giving an economic regulatory agency quite comprehensive powers, and only the vaguest statutory directives as to how those powers are to be exercised. The legislation which set up our present system of economic regulation of air carriers did not at any point direct the Board to tax some consumers for the benefit of others, but it did provide the Board with the tools to do so and with a set of conflicting, vaguely worded objectives, one of which always could be selected to justify such anticompetitive actions.

Antitrust Immunity

Under the present Federal Aviation Act, the Board has power to approve or disapprove mergers (Sec. 408), control relationships (Sec. 409), and agreements

²⁹ Local Cartage Agreement Case 15 CAB 850 (1952); North Atlantic Tourist Commission Case, 16 CAB 225, 226 (1952); Six Carrier Mutual Aid Pact, 29 CAB 158 (1959). The Supreme Court has confirmed the appropriateness of an identical standard in *Federal Maritime Commission v. Svenska Amerika Linien*, 390 U.S. 238, 244, 246 (1967).

³⁰ Capacity Reduction Agreement Case, docket 22908 exhibit D3-A and testimony of Randall Malin, transcript 486-94; see also transcript 2579, 1410-11.

³¹ Docket 22908, Brief of the United States Department of Justice to the Administrative Law Judge, pp. 18-23; Reply Brief, pp. 10-14.

³² Docket 22908, Brief of the Bureau of Operating Rights to the Administrative Law Judge.

among air carriers (Sec. 412). Section 414 of the Federal Aviation Act provides that the antitrust laws shall not apply to persons affected by CAB orders issued under these three sections of the Act, to the extent "necessary to enable such person to do anything authorized, approved, or required by such order." (49 U.S.C. 1384). The public interest would be better served if each of the three types of transactions as to which the Board can confer immunity were evaluated under the standards of the antitrust laws, rather than the general "public interest" rubric of an administrative agency.

If economies of scale were more prevalent in the air transport industry than in the general economy, and these economies were considered more important than the advantages of having an unconcentrated air transport industry, there might be a basis for applying agency review and antitrust immunity with respect to the three areas subject to the section 414 immunity provision. It is manifest, however, that such economies of scale do not exist, and there is no other evidence that anticompetitive industry structure or conduct is any more in the public interest in the air transport industry than in the economy in general. Thus, these types of transactions should be subject to the standards of antitrust law, not administrative law.

It would be desirable to remove the antitrust immunity provisions of section 414 even if these three types of transactions remain subject to administrative review. This would insure that the administrative agency would not follow a less procompetitive standard than that of the antitrust laws; the safest way to do this is to eliminate any inference that the Board's approval brings immunity from an antitrust lawsuit. See, e.g., *United States v. Philadelphia National Bank*, 374 U.S. 321 (1963). The agency thus would be free to apply a higher standard of protection for competition but not a lower one. This is the approach of the Atomic Energy Act of 1954 (42 U.S.C. Sec. 2135).

The existence of the section 414 immunity provision creates the possibility of a lowering of competitive standards not only in the regulated air transportation industry, but also in industries not regulated by the CAB. In a recent decision, the Supreme Court held that a private antitrust action against Hughes Tool Co., a person engaged in aeronautics, was barred by the Board's approval of and continuing jurisdiction over the control relationship which was the basis of the antitrust complaint. The antitrust complaint had centered upon the approved transactions' competitive effects in the commercial aircraft manufacturing industry, not in the air transportation industry which is regulated by the Board. (*Hughes Tool Co. v. Trans World Airlines, Inc.*, 409 U.S. 363, 366). Thus, the effect of the Court's decision may be to allow the Board to create immunity from the antitrust laws—presumably applying the standards of administrative law—in industries where it has only limited jurisdiction to protect competition, or no jurisdiction at all.

If any special characteristics of air transportation require departure from the undiluted application of the antitrust laws, such departure should be effected by a procedure similar to that of the Bank Merger Act of 1966. Under that statute a specialized regulatory agency first passes upon whether a merger would violate the antitrust laws, and whether it should nevertheless be allowed because of specific overriding public benefits which could not be obtained by any other means. The transaction is then subject to de novo review by the United States in a District Court.

III. CONCLUSIONS

The Board has used its comprehensive powers and amorphous policy mandate in part to promote what it perceives as stability and "financially sound conditions" in the industry. Each regulated air carrier is confined to a particular class or type of service on particular routes. Along with mergers and route protection, the result has been an ever dwindling number of competitors within each regulated category. There is abundant evidence that this protection against competition has in itself led to considerably higher prices and lower efficiency than would be available in the absence of entry control.³³

This imposes serious economic costs directly upon consumers of air transportation, and indirectly upon the entire economy. In addition to these direct costs, regulation restricts the freedom of air carriers to enter and leave markets as market forces indicate, and instead require them to go through expensive, time-

³³ See sources cited in Douglas and Miller, *supra* 42, 54; 172.

consuming and unpredictable legal processes before engaging in normal rearrangements of their operations. This has generated waste, inflexibility, and insensitivity to the desires of consumers. It also has kept out of the industry many firms which could have made valuable contributions.

The fare policy of the CAB appears to have taken a turn for the better in some respects as a result of the DPFI. As I have explained above, actual enforcement of the load factor standards could bring considerable progress toward breaking the declining load factor, escalating price cycle. Also in the DPFI, the Board found that cross-subsidization is inefficient and adverse to the public interest, and moved to reduce the cross-subsidization inherent in the present fare structure.³⁴ As the discussion above indicates, however, it remains to be seen whether the Board will follow through on these principles and apply them everywhere they need to be applied.

In the area of pricing flexibility, there has been little change. The Board reaffirmed in the DPFI the practice of pricing on an industry average basis so that all regulated carriers, regardless of their relative efficiency, will continue to survive, and none will have too great an incentive to develop a greater level of efficiency than that of its fellow regulatees. This "cost-plus" pricing policy has deprived consumers of a variety of price and quality options. Given the carriers' tendency to engage in service competition which the Act allows the Board to regulate only indirectly, the result is not even high profits—just waste.

All of these problems, plus the recent economic downturn and fuel price crisis, have led the Board in recent years to move into one area it previously had largely avoided—the approval and even promotion of anticompetitive agreements such as pooling, capacity restraint agreements and "route swaps" which in reality amount to enforceable agreements not to compete. The common goal in each of these recent agreements has been to decrease or at least stabilize competition and increase the rate of return in the industry. The result, in many instances, has been a serious decline in the quality of service coupled with a dramatic increase in prices over and above increases required by costs such as the increased cost of fuel.

What can be done about this? The Department of Justice and other litigants sometimes can help maintain a degree of reliance on competition, but under no circumstances do we believe such litigation brings optimum results. Parties seeking to influence the Civil Aeronautics Board toward more competitive policies are hampered by the vagueness and inclusiveness of the statutory standards among which the Board may choose to justify its decisions, and are hampered by judicial restraint in reviewing crucial aspects of agency decisionmaking. This is exacerbated by the very serious costs and delays of litigating economic issues, both before the Board and in the courts.

These problems will be dealt with in greater detail in later sessions of these hearings. It will suffice to say now that we do not believe the serious problems of air transport economic regulation will be satisfactorily corrected by litigation under present statutory standards, although such litigation can help somewhat.

Neither do we believe that the optimum answer lies in the reform of procedures under which air carrier economic regulation is carried out. Unnecessary regulations is still expensive even if carried out under clear standards and optimum procedures. It would be possible to have a much narrower statute seeking specific goals with definite safeguards for competition and economic efficiency. In air transportation, the fundamental goal would be the provision of efficient air transportation to the public by qualified common carriers using safe planes and qualified crews. A tightly drawn statute would prevent the Board from limiting competition unless it made findings on the record that competition would compromise safety or reliability of service. Even under such a statute, the problem of preventing regulation from pursuing other, anticompetitive goals might prove difficult.

Specifically, we believe that new legislation should move toward the following goals. First, entry and exit restrictions should be greatly liberalized. Second, rate flexibility should be introduced through a phased process, perhaps initially using a zone of reasonableness. Regulatory intrusion with regard to rates within that zone would not be permitted. Finally, existing antitrust immunities should be removed, along the lines suggested earlier in this statement.

There is a broad consensus that reform must proceed along all three of these fronts. The Administration has thus concluded that it would be appropriate to

³⁴ Order 74-3-82, p. 72 (March 18, 1974).

move toward much more reliance upon competition in the air transportation industry, and much less reliance upon government economic regulation. We expect to present specific legislative proposals within a short time to the Congress, and specifically to this Committee.

Senator KENNEDY. Mr. James Miller, currently senior staff economist for the Council of Economic Advisers, received his Ph. D. from the University of Virginia in economics, formerly served on the senior staff for the Republican Party from 1969 to 1972. In 1973-74 he was an assistant associate professor, now on leave; he edited a number of books, including economic regulation of domestic air transport. We also received a statement from his coauthor, Mr. George Douglas which we will make a part of the record.

[The prepared statement of George Douglas, professor of economics, University of Texas, is included at the end of the testimony of this day (February 6, 1975), p. 437, below.]

STATEMENT OF MR. JAMES MILLER, SENIOR STAFF ECONOMIST, COUNCIL OF ECONOMIC ADVISERS

Mr. MILLER. Thank you.

Mr. Chairman, we have a prepared statement that I ask be inserted into the record. Mr. Seever is unable to be here and sends his regrets. As you know, today the Joint Economic Committee is hearing testimony by the full Council on the economic report.

Senator KENNEDY. That is where I am supposed to be, too.

Mr. MILLER. In our testimony we deal basically with three issues. The first is the cost of airline regulation. The second is the efficiency of a hypothetical totally deregulated market. Finally, we outline, as Messrs. Barnum and Kauper did, the kinds of proposals the administration is presently discussing in formulating a legislative package.

On several occasions this morning, questions have arisen about aspects of less regulated or totally deregulated markets that many people question. We deal with several of these in the testimony. I would like to briefly respond here.

SAFETY AND COMPETITION

First, on the question of safety, the Federal Aviation Administration is the governmental instrumentality charged with regulation of safety in the airlines. On the basis of theory and evidence, there is a lot of question the allegation that economic regulation is needed to assure safety of operations. As mentioned in the testimony, we performed such a test on data and found that while the results were statistically insignificant, meaning that regulation had no effect on safety, the nature of the result actually give an appearance of a positive relationship between air fatality rates and the airlines' rate of return on investment.

I agree that in formulating any kind of regulatory reform measure one should be very cognizant of the safety issue, but I do not believe economic regulation is the appropriate means of assuring air safety.

SMALL-TOWN SERVICE (CROSS-SUBSIDY)

Second, with respect to question of small communities' losing air service because of regulatory reform, this first presumes that there is a lot of cross-subsidy going on. The work I accomplished with my coauthor, George Douglas, indicates that the amount of cross-subsidy is grossly overstated. Professor George Eads who is scheduled to testify later, will probably have some additional remarks on this issue. We have also observed that commuter airlines have replaced trunk and local service carriers quite successfully. We have no reason to believe that with less regulation their effectiveness would be diminished.

RELATIONSHIP BETWEEN FARE AND ROUTE ENTRY FLEXIBILITY

The question of pricing flexibility hinges very much on the question of entry. On the low side, as long as entry is relatively free, the carrier which is trying to predatorily price one of its competitors out of the market stands nothing to gain, because as soon as it runs the last one out, it has to confront the possibility of a new entry. On the high side, it is again important that entry be relatively free. A carrier wishing to charge excessively high fares would be restrained from doing so because of the threat of entry.

On fly-by-night operators, even if you had less economic regulation, you would still have the constraints of safety regulation. This would mean that such operators would have to meet safety standards. They might fly-by-night in the sense of going in the market and leaving the market in a very short period of time, but I do not see what real damage that would do to the consumer.

Senator KENNEDY. I suppose the damage to the consumer is unreliability. Here is one carrier in the market one day making his reservations and plans, and the carrier is out of the market the next.

Mr. MILLER. Senator, I do not think we should underestimate the value of a reputation in something like this. The carrier which is new to the market will be viewed skeptically. It is through trustworthy service that a carrier generates new traffic.

NEED FOR LEGISLATION

I would like to make a final remark about the issue of CAB discretion. I think it is true that the CAB could promulgate many of the reforms that we have talked about this morning through the existing statute. However, I do not think it will do so, and I think the evidence of regulation in the past is a very forceful argument to make us skeptical about their being willing to move forward with this kind of reform in the future.

Senator KENNEDY. Why is that?

Mr. MILLER. I think incentives the regulator faces are not generally consistent with economic efficiency. I think the statute itself—for example, the declaration of policy, section 102—is drawn in such a way as to give emphasis to a lot of different conflicting objectives. A regulator who does not want to be concerned with efficiency can find an easy excuse for not doing so.

Also, as a matter of procedure, even if you had a compromising Civil Aeronautics Board, five economists whose sole objective was to maximize economic efficiency, to the extent they would be changing precedent and moving in very new directions, I would imagine there would be a significant protest of such activity. I am not an expert on law, but I am not confident this kind of activity would survive court tests.

Senator KENNEDY. Let me just ask you from the point of view of the Council whether you feel from that vantage point that the idea of greater competition in terms of rates and entry would be beneficial from an overall economic point of view for our economy or from the consumer point of view.

Mr. MILLER. I think it is the major objective of the Council to recommend policies or present analyses which focus on economic efficiency questions as they pertain to regulation and other types of governmental controls. This, of course, counts the consumer to a very large measure. After all, Senator, the ultimate objective of production is consumption.

Senator KENNEDY. Could you develop your thoughts briefly on the question of cross-subsidization. Then secondly, it is really an unrelated question, with this proliferation of new airlines and different prices, how will the consumer know where to go to get a ticket, will we have mass confusion or do you think this is a manageable problem. Would you talk on those two questions?

CHAOS

Mr. MILLER. I will be glad to. Let me take the latter first. Information is a scarce resource, and when consumers know a producer charges a specific rate, and these rates are not likely to be changed, the producer's reputation is enhanced. Consumers find out this information; producers advertise as well. In a freely competitive airline market, consumers would learn the prices that are charged and the carriers that provide good service—the same way as in existing competitive, unregulated markets.

CROSS-SUBSIDY (SMALL TOWN SERVICE)

Now, on the question of cross-subsidy, we essentially model the airlines in the following way: Because there is a lot of competition today—most markets are served by two or more carriers—the Board is really in the business of setting the quality of service. They set the price and carriers compete on the frequency of schedules and other means so as to bring the cost level up to the price level. For example, transcontinental markets were referred to a few minutes ago where the prices are such that carriers can break even at 40 to 45 percent load factors. Carriers do, in fact, schedule up to the point where they are breaking even at those load factors. If the Board lowered the price, then the carriers' break even point would be higher. They would restrict scheduling. This would drive up load factors. So in these markets the carriers are earning neither excess profit nor losses.

On short-haul markets where the fare taper is such that the price—vis-a-vis the cost of a constant load factor service—is too low, the carriers simply cut back on scheduling and provide fairly poor service.

Again, in these markets the carriers tend to earn neither excess profits nor losses.

So our general conclusion, based on this and additional information, is that there is not much cross-subsidy actually taking place.

Senator KENNEDY. Very fine. Thank you very much.

[The prepared statement submitted by Mr. Miller for himself and Mr. Seevers follows:]

PREPARED STATEMENT OF GARY L. SEEVERS, MEMBER, COUNCIL OF ECONOMIC ADVISERS AND JAMES C. MILLER, SENIOR STAFF ECONOMIST

Economic Effects of Regulation of the Domestic Air Carriers by the CAB

Mr. Chairman, members of the Committee: We are pleased to appear before you today to discuss the economic effects of regulation of the domestic air carriers by the U.S. Civil Aeronautics Board.

For a number of years the Council has questioned the efficacy of airline regulation and suggested certain reforms. As a matter of fact, our most recent economic report,* published just two days ago, contains a section which discusses airline regulation and which implies that certain reforms are needed. A copy of that section of the report is attached as an appendix to this testimony.

In the remainder of this testimony we outline what we consider to be the major costs of CAB regulation, we examine the economic performance of a hypothetical deregulated air carrier market, and we indicate the kinds of regulatory reforms the Administration now has under review.

THE COSTS OF AIRLINE REGULATION

As they pertain to the airlines, economic conditions today are very much different from what they were in 1938, when airline regulation was established. At that time, the U.S. Government was attempting to promote an "infant" industry through an inefficient system of airmail subsidy. Basically, the Government granted contracts to air carriers and prevented competition on those routes where contracts were granted. Recognizing the potential for excess profits on passenger services then or in the future, carriers would "buy-in" on these contracts for extremely low rates.¹ This perfectly rational economic behavior on the part of the air carrier firms was then cited as evidence of "destructive competition" in the airline industry and thus a need for governmental intervention to "rationalize" competition.² It was also said that governmental controls were needed to assure safety of operations.

Today, the domestic airline industry is no longer an infant industry in need of promotion; having increased in size since 1938 some 250-fold, by most standards it is now truly "mature". Mail contracts are no longer the vehicle for subsidy, and as a percent of total domestic revenue subsidy has declined from 31.6 percent in 1939 to less than 1 percent today. Except for minor payments to Northeast Airlines in the mid-1960's, the trunk carriers have been completely off subsidy since 1959.³ Air safety, which until 1958 was a primary CAB concern, is now vested with the Federal Aviation Administration of the Department of Transportation (DOT).⁴

Another important change in the nature of the industry and its regulation is that the principal city-pair markets today are served by two or more airlines.⁵

* Economic Report of the President, Washington, GPO, February 4, 1975.

¹ See Richard E. Caves, *Air Transport and Its Regulators: An Industry Study*, Cambridge, Harvard University Press, 1962, p. 124.

² Note that the legislative "Declaration of Policy" admonishes the Board to create "Competition [only?] to the extent necessary to assure the sound development of an air-transportation system . . ." [Original (1938) language now contained as section 102(d) of the Federal Aviation Act of 1958, as amended.]

³ For a discussion of the existing subsidy mechanism and its deficiencies, see George C. Eads, *The Local Service Airlines Experiment*, Washington, The Brookings Institution, 1972.

⁴ Responsibility for investigating air accidents was transferred from the CAB to the National Transportation Safety Board in 1966.

⁵ Note that from 1955 to 1971 the percentage of total revenue passenger miles attributed to markets where 2 or more carriers each accounted for at least 10 percent of the market rose from 55.6 percent to 76.6 percent. See, George W. Douglas and James C. Miller III, *Economic Regulation of Domestic Air Transport: Theory and Policy*, Washington, The Brookings Institution, 1974, p. 114.

Thus, in addition to no longer regulating so as to promote an infant industry and no longer regulating air safety, the Board finds itself no longer preoccupied with regulating monopoly. Instead, its primary activity is regulating competition. But under CAB regulation this competition is of a rather special sort: It is manifest almost totally in dimensions other than price.

A potential price-cutter in a CAB-regulated market faces significant costs in carrying out such an initiative. First, the carrier must announce the new rate at least 30 days in advance, thereby alerting its competition to the intended action.⁶ Second, there is the simple cost of publishing the new tariff with the Board, as legally required. Third, any fare decrease is likely to be protested by competitors as being unreasonably low, discriminatory, preferential, prejudicial, or simply an instance of "unfair competition." Thus, the price-cutter nearly always must make an affirmative case before the Board that the new rate is justified, and this, of course, costs money.

The new rate may be rejected outright or set down for investigation. If it is rejected, then of course any advertising by the carrier about the prospective lower rates is lost, and perhaps on balance creates ill will because the carrier is unable to deliver. If the rate is suspended, the carrier may either withdraw the initiative or pursue it further. If the rate reduction is pursued, then significant procedural costs must be absorbed by the initiating carrier as the rate travels through various steps: prehearing conference, hearing, briefs to the Administrative Law Judge, possibly briefs to the full Board, oral argument, and possibly, in the end, even court challenges.

Because of these impediments, one observes little price competition in the airlines. When rates are lowered they are usually done so in the interest of the whole industry, as for example, introducing discount fares to enlarge total revenues and to make the airlines more effective in competing with other modes of common-carrier transportation, such as intercity buses. Another ramification of this constraint system is that from the standpoint of an individual airline it makes little sense to change the rate in just one market. In an attempt to "spread the cost," airlines which propose rate reductions usually do so on fairly large chunks of traffic, although such a strategy inevitably reduces the likelihood of ultimate approval by the Board and of course raises litigation costs.

The Board's statutory authority to control price and its procedures for implementing that control thus have rendered price competition in the airlines all but non-existent. On the other hand, there are other means that carriers have for attracting and competing for passengers over which the Board exercises little or no direct control. Such non-price competition takes various forms, including costlier meals, "free" drinks, expensive advertising, flashy interior and exterior color schemes, "VIP" airport lounges, on-board lounges, pianos, bars, and the like. But much more important, in terms of its ultimate cost to the consumer, is the scheduling form of non-price competition. As will be discussed below, scheduling additional flights is the most effective means that individual carriers have of attracting additional passengers. Notably, except for its power to grant antitrust immunity and to orchestrate capacity agreements among carriers, the Board is prohibited from controlling schedule competition.⁷

For any price that is approved or, in essence, "set" by the Board, the market has a "break-even" load factor, which we define so as to include a normal return on investment.⁸ If actual load factors are below the break-even level, the carriers will be earning less than a normal profit, or even accounting losses and will cut back on capacity. Since market demand is inelastic with respect to capacity,⁹ load factors will rise, and the process of capacity curtailment will continue until actual load factors have risen to the break-even level, at which point the incentive to reduce capacity unilaterally will disappear.¹⁰ On the other hand, if actual load factors exceed the break-even level, individual airlines have profit incentives to increase capacity. Actual load factors will fall and the process will

⁶ Thus, there is no such thing as a conventional "sale" in the airline business.

⁷ Section 401(e)(4) of the Federal Aviation Act states that, "No term, condition, or limitation of a certificate shall restrict the right of an air carrier to add or change schedules . . ."

⁸ "Load factor" is the proportion of seats filled, usually expressed as a percentage.

⁹ That is, the percentage change in total traffic in the market is less than the percentage change in the market's total capacity.

¹⁰ Short of the break-even load factor an individual carrier can safely assume that it reduces capacity its competitors will also. However, once equilibrium has been reached, a carrier reducing capacity unilaterally may not assume that its competitors will do likewise.

continue until capacity increases have reduced actual load factors to break-even, at which point there is no more incentive to add to capacity.¹¹

An extremely important aspect of this non-price competition is that there is a whole range of prices which the Board may choose and still enable competitive returns to the individual carriers, or at least to the carriers as a group. If the Board chooses a "high" price, the break-even load factor will be "low" and, in equilibrium, so will be the actual load factor. If the Board chooses a "low" price, the break-even load factor will be "high" and, in equilibrium, so will the actual load factor. The nature of this trade-off between fare and average load factor is displayed in figure 1.¹²

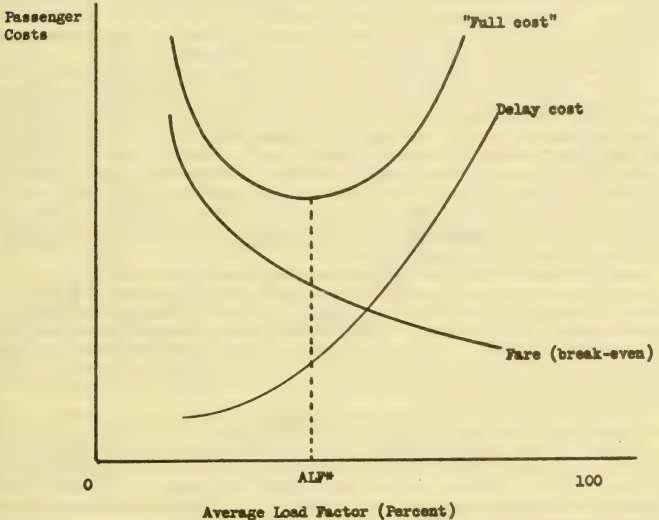


Figure 1

(For illustration purposes only; not drawn to scale.)

¹¹ When market load factors are above break-even, an individual carrier can make more profit by expanding its own capacity provided other carriers do not also expand their capacity. The evidence suggests that carriers act as though they make such an assumption. A variant explanation of observed behavior is that since an individual carrier may not assume that its competitors will not increase their capacity it must increase its capacity just to maintain its market share. In any event, when the break-even load factor is reached, there is no incentive to increase capacity, since the market load factor will fall below break-even and each carrier may assume that its competitors will follow a policy of restraint.

For a more thorough description of this nonprice-competing behavior and evidence on same, see Douglas and Miller, *ibid.*, chapter 4 and the papers cited therein by De Vany, Douglas, Miller, Straszheim, Yance, Barnekov, Eads, Milward, and White. For an empirical analysis of the relationship between market shares and capacity shares, see James C. Miller III, "Airline Market Shares vs. Capacity Shares and the Possibility of Loss Equilibria" (processed, 1974) and CAB Docket 22908 (Capacity Reduction Agreements Case) DOT-T-1 through 5 (1974).

¹² Notably, the Board would appear to have accepted this model of regulated-carrier behavior. In a decision in its recent domestic passenger fare investigation (CAB Docket 21866), the Board said:

"We find . . . that the higher the fare level in relation to cost, the more capacity carriers will offer and the lower load factors will be; and, conversely, the lower the fare level, the less capacity carriers will operate and the higher load factors will be." [CAB Order 71-4-54 (April 9, 1971), p. 23.]

Over a fairly wide range of prices, carriers, in equilibrium, will earn normal profits—and thus, arguably, the choice of price is not material to them. However, the passenger's cost of service is greatly dependent upon the price and load factor option chosen by the Board. In essence, the passenger's "full cost" of travel is the ticket price plus the "cost" of delays he, or she, incurs in waiting for a flight. We see in figure 1 the rather obvious proposition that as the average load factor rises the associated break-even fare falls. If this were the only element in the passenger's cost of service, public policy would dictate a fare consistent with load factors of near 100 percent. However, as load factor falls delay cost increases. Passengers find it more difficult to secure accommodations on the desired departure and flights are fewer, with more time in between departures. When translated into money terms this delay cost is as characterized in figure 1. The passenger's full cost of service is thus the sum of these two types of cost, i.e., ticket price plus delay, and, given these two curves, for some average load factor level the "full cost" is at a minimum, i.e., ALF.

A recent Brookings publication by Professors Douglas and Miller came to the conclusion that the Board has chosen too low a load factor standard, i.e., 55 percent as opposed to 60–65 percent, and consequently is promulgating fares which are too high.¹³ This means that the typical passenger is paying an "excess fare" which exceeds the value of the reduction in delay. This in turn means a higher full cost of service with no offsetting higher profits to carrier. Thus, there is regulation-induced excess capacity which represents a deadweight loss to society.¹⁴ Douglas and Miller estimate that during 1969 air passengers paid excess fares to domestic trunk carriers ranging between \$366 million and \$538 million, for which they received quality improvements valued at between \$118 million and \$182 million. This leaves a deadweight welfare loss in trunkline service for 1969 of between \$248 million and \$356 million.¹⁵

Since 1969 the Board has established target load factors of 55 percent as opposed to the then-prevailing levels of approximately 50 percent. However, the recent increases in fuel prices have raised the optimal average load factor to approximately 65–70 percent, so the present configuration of service is still characterized by efficiency costs on the same order of magnitude. Based on total domestic trunk revenues of \$9,316 million for the year ending September 1973, this implies a current annual welfare cost for trunk service ranging between \$355 million and \$509 million.

There are additional costs of airline regulation. First, there is evidence that the relationship between the Board and the industry has resulted in a level, and structure, of fares which maximizes total capacity rather than one which maximizes total passenger traffic.¹⁶ This is illustrated in figure 2.¹⁷ Since some costs are "external" to the airlines and their passengers, this behavior has quite likely resulted in excessive investments in airport and airway facilities as well as excessive consumption of fuel.

Second, the Board's policy of protecting existing carriers from competition by preventing the entry of new carriers¹⁸ not only means that the public has been denied lower price-quality options, but that potentially more efficient carriers have not been able to test the efficiency of existing carriers. Whether new carriers would have significantly lower costs is subject to considerable debate, but evidence on relative carrier costs and the evidence from unregulated markets certainly raises this possibility.¹⁹ There are two significant problems with this approach, however. First, a regulator is inherently less capable of administering resources "correctly" than is an individual competitive entrepreneur. The regu-

¹³ In the DPFI the Board announced its intention of in effect setting fares at levels which would cover costs (plus a reasonable return on investment) on the basis of an industry-wide average load factor of 55 percent.

¹⁴ The analysis only briefly summarized here can be found in Douglas and Miller, *ibid.*, chapter 6.

¹⁵ Miller and Douglas, *ibid.*, p. 172.

¹⁶ See Arthur S. De Vany, "Effects of Price and Entry Regulation on Airline Output, Capacity and Efficiency," *Bell Journal of Economics and Management Science*, (forthcoming Spring 1975; and Douglas and Miller, *ibid.*, pp. 60 and 176–77.

¹⁷ Rather than choosing fare level F*, the Board has chosen fare level F**. Figure 2 is adapted from De Vany, *ibid.*

¹⁸ Since regulation was established in 1938, not a single new trunk carrier has entered the market, and not a single trunk has exited the market except through merger.

¹⁹ See Robert J. Gordon, "Airline Costs and Managerial Efficiency" in *Transportation Economics: A Conference*, Columbia University Press for the National Bureau of Economic Research, 1965, pp. 61–94; Theodore E. Keeler, "Airline Regulation and Market Performance," *Bell Journal of Economics and Management Science*, Autumn 1972, pp. 399–424; William A. Jordan, *Airline Regulation in America: Effects and Imperfections*, Baltimore, The Johns Hopkins Press, 1970, chapter 11; and Douglas and Miller, *ibid.*, pp. 141–9.

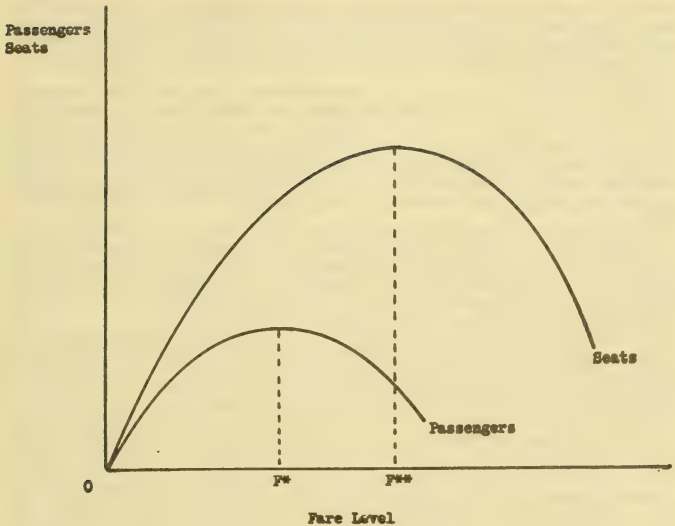


Figure 2

(For illustration purposes only; not drawn to scale.)

lator neither has information as good as that of the entrepreneur nor does he, or she, have the appropriate incentives. Second, in terms of fact versus theory, the performance of the existing regulatory agencies causes one to be extremely skeptical of achieving good industry performance by relying upon regulation.

ECONOMIC EFFICIENCY OF DEREGULATED MARKETS

Costs of regulation such as those described above implicitly assume some alternative, usually and ideally, efficient markets. In real life, critics of regulation must be careful to identify realistic alternatives. Two such alternatives immediately come to mind: (a) "enlightened" regulation, and (b) total deregulation. On the one hand, it is entirely possible that a truly enlightened regulator could eliminate most of the costs described above. For example, in an ideal setting the CAB could adopt target load factors by market characteristic and accordingly, by regulating fares, eliminate the costs of "excess capacity."

At the other extreme is the hypothetical, completely deregulated, competitive market.²⁰ The theoretical argument for the efficiency of deregulated airline markets is extremely powerful. The airline industry appears to conform closely to the necessary conditions for price competition: no significant scale economies,²¹ fairly elastic or firm demand, relative difficulty of coordinating pricing and output policies i.e., collusion, and, in the absence of controls, relative ease of entry and exit.

²⁰ For this discussion, by the term "deregulation" and its derivatives we mean the elimination of economic regulation only, not the elimination of safety regulation.

²¹ On the question of scale economies see Douglas and Miller, *ibid.*, pp. 13-18 and the sources cited therein.

Finally, there are numerous regulator-imposed constraints on routings and service requirements which serve to raise costs.²² To our knowledge a precise estimate of all these costs has not been made. In our judgment this figure would be in the neighborhood of \$1 billion per year, or around 10 percent of total domestic trunkline revenues.²³

Looking at the question of optimal price and load factor, with fare flexibility, a carrier would have an alternative means of attracting additional passengers: lowering price. The carrier could then judge the most effective way of attracting business: lowering price or providing more service. The result would be the appropriate market combination of price and quality. Moreover, in some markets there may well be a distribution of price and quality combinations that is desired by the public.²⁴ Free markets provide incentives for this configuration to come about.

Under conditions of free entry and free exit, firms would have to stand a more substantive "market test" of their efficiency. More efficient firms would survive, and inefficient firms would be forced to exit. The removal of restrictions on routings would result in lower costs to consumers, and uneconomical markets would be abandoned. There might well be some "market imperfections,"²⁵ but in economic efficiency terms these would probably be fairly minor.

Of course, we would like to rely upon facts concerning deregulated markets as well as upon theory. Unfortunately, we do not have ideal tests of deregulation since the CAB has preempted truly comparable experiments. However, we do have two deregulated markets that are similar in many respects to CAB-regulated markets, except, of course, for differences in the degree of regulation.

First, we have the intrastate markets, which are outside CAB jurisdiction. Prior to 1965, the California Public Utilities Commission regulated maximum prices in intrastate air service, but not entry and exit.²⁶ Professor William A. Jordan has made an extensive study of the history and economic character of this market and has concluded that in virtually all respects the California intrastate airline market is much more efficient than comparable interstate CAB-regulated markets.²⁷ Even today, with tighter regulation, fares in California intrastate markets average much less than fares in comparable interstate markets.

A similar result was obtained in the Texas intrastate market, where Southwest Airlines, a carrier licensed by the Texas Aeronautics Commission, is in competition with Braniff Airways, a CAB-regulated trunk carrier, and Texas International Airways, a CAB-regulated local service carrier. Despite having its service introduction postponed nearly four years because of judicial challenges by Braniff and Texas International, the carrier is now serving the "golden triangle" (Dallas, Austin, and Houston) at a profit, charging fares which average some 20 to 50 percent less than comparable CAB-regulated fares.

The other major unregulated market is that of commuter airlines, previously known as air taxis. In 1952, faced with doing something about a plethora of illegal interstate air taxi operations, the Board simply exempted from regulation²⁸ any interstate air carrier which utilized aircraft having no more than 12,500 pounds gross take-off weight.²⁹ At that time it was thought that no operator could provide profitable scheduled operations with such small aircraft. Subsequently, however, technology changed, and equipment of this weight is now capable of carrying up to 19 passengers at reasonable comfort and speed and at relatively low cost. Today there are literally hundreds of such operators which provide regularly-scheduled service to low-density markets—and in some higher-density

²² Some of these have been instituted to assure service to points that the incumbent carrier might not ordinarily serve. To some extent, then, such costs are revealing of the resource costs of pursuing certain social "non-economic" objectives.

²³ Note that these losses are not simply transfers from consumers to producers or from consumers to consumers. They represent the economic cost of squandered resources.

²⁴ For example, a low load factor, low-density, high-amenity, high-priced service catering to business travelers, and a low-cost, no-frills service catering to the vacation traveler. At present such specialization is limited—another cost of regulation.

²⁵ These include: (a) collusion over prices and/or service, (b) quasi-monopoly service in marginal markets, and (c) inefficient mixes of aircraft and frequencies. On the latter point, see George W. Douglas, "Equilibrium in a Deregulated Air Transport Market," paper delivered at a seminar on Problems of Regulation and Public Utilities, Dartmouth College, 1972, processed.

²⁶ Since then control over entry and exit has been instituted.

²⁷ Jordan, *ibid.* Also see Bureau of Accounts and Statistics, "Traffic, Fares, and Competition: Los Angeles-San Francisco Air Travel Corridor", Washington, U.S. Civil Aeronautics Board, 1965.

²⁸ Under section 416(b) of the Federal Aviation Act.

²⁹ That standard was recently changed to a 30-passenger capacity and a net payload of no more than 7,500 pounds.

markets, often in direct competition with trunk and local service carriers. Since with few exceptions these carriers receive no government subsidy, and since they are handicapped in terms of the size of the aircraft they may operate, they tend to serve marginal, or uncertain routes; thus, their turnover is judged by some as being fairly high. However, it is notable that such unregulated carriers serve many markets that CAB-regulated carriers have chosen to abandon and that their service, given their equipment and the characteristics of their markets, is safe and reliable.

By no means has the brief discussion touched on all the characteristics of deregulated markets. In the space remaining, however, we should like to respond to the more significant criticisms raised by those who oppose less regulation of the domestic air transport system:

1. Without regulation, flights would be unsafe. Critics of deregulation argue that regulation is needed to insulate carriers from market forces; otherwise, the "dog-eat-dog" atmosphere of free competition would lead carriers to skimp on safety, to the public's detriment. There are several answers to this: First, the governmental instrumentality charged with air safety is the FAA, not the CAB. Deregulation, as we have defined it, would leave the FAA's role unaffected. Second, there is little direct evidence that economic regulation has had any effect on air safety. For example, the Board has never withdrawn or suspended the certificate of a trunk operator on grounds that its operations were unsafe, and its constraints on entry have seldom if ever revolved around issues of safety. One variant of the safety hypothesis is that high profits mean safe operations. However, when we tested this naive proposition over the period 1939 to 1953, for which there appeared to be adequate variations in profit rates and fatality rates to make a test feasible, we found the result contrary to what critics of deregulation would have predicted. While the net effect was small and statistically not meaningful, the result actually showed a positive relationship between industry profit rates and industry fatality rates.³⁰

2. Under deregulation there would be wholesale abandonment of markets, leaving only the "top-25" (or top-50 or top-100) markets with adequate service. This prediction is based, in essence, upon the assumption that CAB regulation presently constrains the abandonment of hundred of markets. In particular, it is argued that the present pricing structure enables a considerable amount of cross-subsidy whereby a carrier uses the excess profits from some markets to offset losses in others that presumably would not receive service under deregulated conditions. Miller and Douglas have found that the extent of this cross-subsidy is greatly overstated,³¹ and apparently the Board agrees.³² If this is true then presumably most alleged "losing" markets are in fact self-supporting and would not be abandoned if regulation were terminated. Second, even if one carrier abandons a market, this is not to say that some other carrier could not serve it at a profit.³³ Third, there may be points which would be abandoned if carriers were restrained to the CAB-regulated fare, but free to charge a higher fare if need be, carriers could serve many such markets at a profit. There are numerous cases where trunks or local service carriers have abandoned markets that were later served by commuter carriers at a profit, often a slightly higher price and a more frequent service configuration.

3. Under deregulation, only a handful of carriers would survive. This could happen, but if it did such industry concentration would not be a problem. Since there are no pervasive scale economies, there is little reason to anticipate this outcome any more than one might anticipate the emergence of several hundred operators. However, even if only a handful of carriers did survive, the ease of entry into deregulated markets would act to "police" the market and thus prevent any abuses of monopoly power.

4. Under deregulation, prices and schedules would be unstable. Without doubt deregulation fares would be less stable than at present. After all, regulation has virtually precluded price competition. However, rates would not fluctuate broadly. The reason is that information is a scarce resource and carriers can reduce this expense and thus attract passengers by keeping such rates relatively stable. The

³⁰ The result was as follows: Domestic fatality rate (passenger fatalities per 100 million miles flown) = $1.76 + (.009 \times \text{domestic industry profit rate})$. (T-statistic on variable coefficient = .25; equation $R^2 = .08$.) Data sources: U.S. Civil Aeronautics Board, *Handbook of Airline Statistics: 1971 Edition*, Washington, GPO, 1972, p. 554; and Caves, *ibid.*, p. 392.

³¹ Miller and Douglas, *ibid.*, chapter 6.

³² See CAB Order 74-3-82, March 18, 1974, pp. 66-72. Moreover, the Board has recently enunciated a policy of eliminating any cross-subsidy. (*Ibid.*, p. 68.)

³³ Perhaps the replacement carrier is more efficient, or the point is more complementary to its route system.

same is true of schedules. An unregulated carrier stands to gain considerable ill will by not keeping schedules, or, put another way, an unregulated carrier may gain a good reputation by maintaining published schedules. Certainly the experience of the intrastate airlines and the commuter airlines is inconsistent with the prediction of unstable rates and schedules under deregulated conditions.³⁴

APPROACHES TO REGULATORY REFORM

From the prior discussion, it should be apparent that the economic performance of the domestic airline industry would be significantly enhanced if economic regulation were liberalized or perhaps eliminated. Since one cannot predict with absolute certainty what would happen with complete deregulation, it may not be feasible to make a total commitment to such a course of action at this time. Fortunately, there is an approach which appears feasible, which leaves open the question of ultimate total deregulation, and which we would highly recommend. That is, we should move smartly in the direction of more liberal regulation; at the same time we will gain additional information about the efficiency of total deregulation and can make incremental decisions as needed. Such a regulatory reform proposal would be consonant with the following principles:

1. Entry. It should be easier for existing carriers to enter new markets and for new carriers to enter the business. At a minimum, the Board should consider the effects on economic efficiency of prospective new service when deciding entry cases. Also, it would be desirable to prohibit the Board from constraining entry on the grounds that it might adversely affect other carriers.

2. Exit. Carriers should be allowed to abandon markets where they cannot cover costs. Otherwise, implicit taxes on other travellers have to support such services and this is not only questionable as a matter of equity, but it tends to hide the real cost of serving these markets.

3. Rates. Fares should be flexible so as to allow price competition. One approach would be to institute a "zone of reasonableness," such as plus or minus 15 percent of existing fares, within which fares would be totally *exempt* from regulation.³⁵ Retaining control over maximum and minimum fares thus guards against the possibility of monopolistic exploitation on the high side and alleged "cut-throat" competition on the low side. Over time the zone could be widened to allow for even more price competition, lower fares, and further differentiation in price-quality offerings.

4. Antitrust immunity. In order to assure that the basic thrust toward less regulation were not perverted, it would be necessary to limit the Board's power to grant antitrust immunity. Such a change would affect such things as agreements over fares, pooling of revenues, agreements to control capacity, *et cetera*. Not affected would be innocuous relationships such as baggage interchange, joint reservation facilities, and the like.

5. Subsidy. During an interim period, it might well be desirable to retain the Board's subsidy program. However, we would suggest that the whole subsidy mechanism be reexamined in order to determine ways of obtaining more results from each subsidy dollar, or, alternatively, of reducing the subsidy bill for any given results.

Legislative proposals for regulatory reform reflecting these principles are now being considered by the Administration. It is anticipated that the Administration will recommend to this session of Congress a comprehensive program which, if enacted, would significantly increase the efficiency of our air transportation system and provide consumers with improved transportation services at lower costs.

³⁴ See, for example, Jordan, *ibid.*, chapters 5-10.

³⁵ It is important that this zone be wide enough to allow for meaningful price competition. Also, too narrow a zone would facilitate price collusion. Fifteen percent, plus and minus, would appear to be a minimal standard.

AIR TRAVEL

(From Economic Report of the President, 1975, G.P.O., pp. 154-5)

In the domestic airline industry, regulation has reserved primarily to bring about a nonoptimal choice of price and quality. Because the CAB had a fairly liberal policy during the 1950's and 1960's toward the entry of existing carriers into city-pair markets, the principal markets are now served by two or more airlines. However, since their fares are regulated by the CAB, the airlines tend to complete on the basis of scheduling, over which the Board does not exercise direct control. The result is "excess capacity," and efforts to raise the regulated fares in order to assure a return on investment greater than the industry's perceived cost of capital serve only to set the stage for further capacity augmentation.

Carriers as a group have consequently tended to earn neither excess profits nor losses, but the traveling public has paid higher fares because of the regulation-induced excess capacity. While excess capacity does yield some benefit in the form of more frequent departures, less crowding, and a better chance of obtaining a seat on the preferred departure, the value of this excess capacity is almost surely less than its cost. As evidence, in the relatively unregulated California and Texas intrastate markets the competitively determined higher-load factor service has historically been sold at prices some 40 percent below the prices of comparable interstate, CAB-regulated services. Moreover, a recent study reports that in 1969 domestic air passengers paid "excess fares" ranging between \$366 million and \$538 million, for which they received service quality improvements valued at between \$118 and \$182 million. The difference, between \$248 million and \$356 million, represents a deadweight loss to society.

In its recent domestic passenger fare investigation, the CAB established target load factors of 55 percent. Since the prevailing load factors were around 50 percent, this policy had the effect of reducing excess capacity and lowering fares. However, it would appear that a much higher load factor standard is justified especially in view of the recent increases in fuel prices. The Board's new policy of encouraging agreements among carriers to limit capacity is not an appropriate way of dealing with this problem. In markets covered by agreements, the passenger's total cost of service is increased because of increased delays, but the fare is not reduced.

Airline regulation imposes other costs, which are not generally well perceived. For instance, through the regulatory process, fares have tended to be set at levels and with a structure that maximizes total seat capacity, as opposed to maximizing total passenger traffic, the result being added congestion and environmental costs, as well as increased costs of airports and airways. By restricting the entry of new firms into trunk carrier service in order to protect less efficient incumbent firms, regulation has also penalized potentially more efficient firms and has resulted in higher fares for a given quality of service.

These costs of airline regulation could be reduced substantially or even eliminated if entry into and exit from markets were made easier and if control over fares were liberalized so as to encourage price competition. Under such circumstances an individual airline could attract more passengers by lowering its price rather than increasing its total capacity.

Senator KENNEDY. Mr. Peck is our next witness, a former member of the Council of Economic Advisers.

Then Professor Noll, if you would be kind enough—Professor Noll received his Ph. D. in 1957, was on the senior staff, Council of Economic Advisers, through 1973, and senior fellow, and currently professor of economics at the California Institute of Technology.

Thomas Moore, would you come up? Mr. Moore is professor of economics, at Stanford University.

Mr. Peck, do you want to start?

STATEMENTS OF MERTON J. PECK, PROFESSOR OF ECONOMICS, YALE UNIVERSITY; ROGER G. NOLL, PROFESSOR OF ECONOMICS, CALIFORNIA INSTITUTE OF TECHNOLOGY; AND THOMAS G. MOORE, SENIOR FELLOW, THE HOOVER INSTITUTION ON WAR, REVOLUTION, AND PEACE, STANFORD UNIVERSITY

Mr. PECK. Yes, thank you, Senator.

I have a short statement I would like entered into the record, but I will not read it. The reason is that the testimony of the previous witnesses from the Department of Transportation, Council of Economic Advisers, the Federal Trade Commission and the Department of Justice have made many of my points. To read my statement now might seem to be preaching to the converted. Much of my statement would be cumulative.

I would like to indicate, however, that the economic literature in recent years has made two points: First, regulation is economically inefficient; it costs the consumer too much. Second, the solution to this inefficiency lies, in general, in more competition and less regulation to provide the consumer additional price and service options.

Those two points were made well, I think, by the preceding witnesses. Looking at their footnotes, I discovered an amazing fact. People do read economists' writings, and those writings are reflected in the testimony of the previous witnesses.

I would add three other points. First, we have all observed that airplanes fly half empty, and the numerous flights reduces waiting time but raises costs. A Yale student of mine, Michael Pustay, has calculated the value in reduced waiting time relative to the cost of more flights. He found that in 1969 the excess capacity flown, if waiting time is valued at \$10 an hour, added about 10 percent to airline fares.

In transcontinental markets, it added even more to the costs. His results suggest the following conclusion: In 1969, the American airlines were flying the right number of flights for the \$60,000-a-year man, to whom convenience matters more than cost. Everyone also was offered too many flights and too high fares.

Now I would like to turn to another point. I think congressional hearings are a highly desirable forum in which to raise the critical issue of regulatory reform. You mentioned earlier, Senator, the regulatory proceedings themselves as a way to change policy. I have appeared as an expert witness in regulatory proceedings. I have been impressed with the care and diligence of regulatory officials as well as their concern with the public interest. But I find the issues are too narrowly drawn to make regulatory proceedings a good place in which to examine broad issues.

I would add one final point made in my statement. I recall President Kennedy's transportation message of 1962, which was a forceful plea for deregulation. If one heard only the first day of the hearings on that message, with witnesses all in favor of it, one would conclude deregulation was going to come within a week or two. It turned out that the first day was not representative, and the legislation that accompanied that message did not do well in Congress.

It seemed to me then that President Kennedy's plea for deregulation was good economics. It may even be better economics today.

Senator KENNEDY. Professor Noll.

Mr. NOLL. Senator, we have engaged in a little bit of collusive behavior of our own, and I think it would be more appropriate if Mr. Moore came before I did.

Mr. MOORE. Thank you, Senator. I would like to summarize my statement.

My research and other research all on the question of regulation is going to point to the same thing: regulation produces waste, higher prices, and often poor service. My research has been in the area of ICC regulation, regulation of trucking in Europe, regulation of electricity utility rates by State Commissioners, occupationally sensing, and the regulation of stock market margin requirements. I might indicate my study of ICC regulations has indicated in 1968 ICC regulations inflicted costs on the American economy in the order of \$3.8 to \$8.8 billion. Today the figure would be considerably higher.

I would like to turn to my experience in western Europe, which I have just come back from, studying the regulations there.

I found that regulation has the same pattern there as it does here. In those countries like West Germany, they have very strict regulations, and prices are much higher, almost 40 percent higher, than in free market countries.

England, for example, has deregulated trucking entirely, and it illustrated an appropriate one for this hearing because many of the same points that you were raising this morning and others raised about deregulation were raised about deregulating trucking. Professor Noll, who has argued that he would get predatory pricing cutthroat competition, monopolizing, services would disappear to small countries, safety would decline, but when they deregulated trucking, none of these things happened, prices did come down, but profits surprisingly enough were not appreciably affected. Service appeared to improve, their service to small communities, even in northern parts of Scotland, were maintained, and in fact improved under deregulation, and the safety record also improved. That was due partly to some additional statutes dealing with safety and trucking.

So that none of these things that are alleged to happen happened there. There is no reason to believe they would happen in the airline industry.

The second point that I want to make is that regulation as a process is inherently faulty. There is nothing that you could do, no rewriting of the statute, no appointment of better commissioners is going to do more than make marginal improvements. The regulatory process as it is developed must in fact emphasize the economic health of the industry. The regulators cannot tolerate major firms failing. Your hearings last fall indicated that the CAB was attempting to put a floor under charters.

Too, as your own report said, to maintain or increase the profitability that Pan Am—let me see—had in order to help Pan Am with its financial problems.

This is inherent in regulation. Regulation also by its very nature in a competitive industry often results in the regulated not even getting the benefits, because price competition which others have talked about this morning has been eroding.

Roger Noll is going to elaborate a little more on this and the problems with the regulatory policy.

Mr. NOLL. Thank you. I, too, as Professor Peck, have a written statement that I do not intend to bore you with in completeness. I have given a corrected version to professor Breyer which I hope you will put into the record.

Senator KENNEDY. Yes. It will be included in the record.

Mr. NOLL. Since this is in fact a committee on administrative practices, I would like to focus on the way the administrative practices operate and what kind of efficiency effects they have.

I think, as judged from the testimony so far here today, economists and even lawyers and political scientists who have studied regulation have focused too much of their attention on performance of the industry and too little of their attention on the nature of the process itself. One is normally faced with a conclusion which says regulation of the industry is costing us x billion dollars, therefore, let's stop having fools, and incompetents, and politicians appointed and fix the whole thing up or they will say let's tinker with the administrative procedure so the procedure can be made better.

CERTAIN COSTS ARE INTRINSIC TO REGULATION

What I would like to give today is a view on why I think this is a mistaken view. I have known fine men on regulation commissions who came out after their term simply shaking their heads, not understanding why they weren't able to accomplish all the things they were hoping to accomplish when they went in.

The problem lies in the institution itself. There are a number of dilemmas in setting up an industry to control market behavior that are simply unresolvable.

COSTS DUE TO REGULATORY DELAYS

It first arises from incompatibility of decisions, that make decisions with staff, that individuals are accorded due process, that decisions are based upon evidence, and that when someone raises an issue in a proceeding that is to be accounted for by the person making the decision.

It is inconceivable the kinds of power to redistribute wealth that inheres in regulatory institutions would be delegated to any bureaucracy without subjecting the decisions to judicial review and without giving affected individuals the right to plead their cases before decisionmakers.

To safeguard the rights of individuals against capricious and arbitrary decisions of an agency requires establishing decisionmaking procedures that normally cause decisions on important issues to be protracted. This can create serious problems in three types of circumstances, when rapid inflation pushed costs up and firms cannot respond to cost increases by raising prices until a protracted regulatory review has been completed; when a technological development that would

lower costs and improve service quality cannot be fully exploited without regulatory review; and when an innovative new firm seeks to enter a regulated market but must first win the approval of the regulators. The last two effects significantly reduce the incentive to the firm to be innovative, since to all the risks and costs of innovation are added the expense in time and resources of a regulatory proceeding, while the risk of a more innovative competitor capturing a superior market position is reduced.

COSTS DUE TO NECESSARY BIAS TOWARD THE FEW COMPANIES MOST AFFECTED

The second major dilemma of regulatory institutions reflects the trade-off between an expensive regulatory process and a process that is insulated from the individuals affected by its outcomes. In part because the preservation of accountability and due process through judicial review makes participation in the regulatory process expensive, and in part because the vast majority of persons who are affected by regulatory decisions are not effectively organized to represent themselves in regulatory proceedings, the flow of information and proposed rules to the agency is one-sided. A passive agency that relies upon the evidence supplied by participants in the process will inevitably make decisions based upon incomplete assessments of the issues at hand; an agency that can generate its own independent flow of information on every important case will be much more expensive to operate. In fact, none of the Federal regulatory authorities engaged in price and profit regulation devotes anywhere near the resources to generating information for use in regulatory proceedings that is committed by the industries they regulate.

An example of what basically happens is that a few well represented groups, by virtue of the procedure of the agency, get to structure what the issue will be in the proceeding and they get to provide most of the information upon which the decisions will be based.

The outcome is best illustrated by the recent debate over the regulation of cable television.

The recent debate over the regulation of cable television is an illustrative case in point: The final regulatory rules were worked out by a coalition of broadcasters, cable system owners and program producers. While each of these groups cast their arguments defending their own positions in terms of the beneficial effects a system satisfying them would have on society at large, and while the FCC devoted some staff resources to investigating the stake of viewers in the issue, nevertheless the final compromise was hammered out exclusively by the well-represented special interests, and was adopted by the FCC explicitly because none of the three groups would appeal the compromise, legally or politically.

Senator KENNEDY. Professor Breyer is going to chair this part of the hearing. I hope you will continue if that is all right.

Mr. NOLL. OK.

These endemic problems of regulation do not necessarily lead to the conclusion that under no conditions should industry be regulated. All they imply is that certain inevitable costs are to be expected. Generally, these costs will be higher because: (1) the sophistication required to determine the true technical and economic conditions of the industry is greater, (2) the greater the portion of the effects of regulation that is diffused over a large, heterogeneous group that is unlikely to be effectively organized, and (3) the more uncertain and rapidly changing the economic environment in which the regulated firms operate, such as is the case during a period of rapid inflation or deepening recession.

The cost of regulation is also likely to be greater the more competitive the regulated industry. This is because entrenched firms are to some extent protected from competition by the slowness and costs of procedures that must be followed by new entrants into a market. In addition, the regulatory forum allows competitive firms to engage in a far greater degree of collusive behavior than would be permitted in a normal competitive circumstance. And by exercising some control over the information flowing to the agencies, while constituting the primary threat of appeal to the agency's decision, the industry can push the agency to make policies and adopt rules that enforce cartel-like behavior upon the firms in the industry. These types of actions—the mutual service reduction agreements among the airlines that were promoted by the CAB are good examples—would surely be antitrust violations in the absence of the protective umbrella of the regulatory statutes.

The principal conclusion of the preceding remarks is rather straightforward: one should keep in mind the costs of regulation when deciding whether to regulate any particular industry, and whether to continue to regulate an industry that was subjected to regulation when circumstances were far different from the present. For example, if an industry becomes increasingly able to support a competitive market structure as time progresses, the expected costs of regulation will increase while the expected benefits of regulation will decline.

COSTS INCREASED WHERE REGULATOR—LIKE CAB—MUST PROMOTE INDUSTRY

Presumably the argument for regulation of most industries is more complex than simply the avoidance of monopolistic practices. In the case of domestic airlines, regulation has a certain promotional feature, owing to the effects attributed to an extensive air route structure on economic development, the distribution of economic activity, and na-

tional defense. Without debating the merits of these contentions—which are, of course, eminently debatable—the issue remains which policy instrument can most effectively generate the desired route structure. The difficulty with the regulatory approach is that this explicit promotional aim gives the regulatory authority an even greater industry orientation than the institutional dilemmas would normally produce. On the industry's part, promotional, cost-plus regulatory policies generate overly optimistic investment plans since the incentive for investment is heightened by the belief by firms that regulators will act to ameliorate at least some of the financial losses that will be suffered if an investment plan proves too optimistic. On the agency's part, financial failure of a regulated firm is at best an embarrassment and at worst a serious problem; the failure may be attributed to the decisions of the agency, and, in any event will, at least temporarily, cause the pattern of service to fall short of the promotional objective that led the agency to acquiesce to overinvestment in the first place. The result is a continuing spiral of overly optimistic expansions—too many new planes flown too frequently over too many routes—followed by policies propounded by regulators to bail out their charges.

Deregulating a competitive industry will undoubtedly have some significant adjustment effects. Prices and profits will probably fall, dramatically so in the short run, some routes will be abandoned or be subjected to sharp service curtailment, and some firms may face bankruptcy and reorganization. But in the long run, more and better service and normal profits can be expected, and at reduced prices, as firms learn to operate more efficiently and as the price system is used as a signalling device for tailoring service to user tastes.

ALTERNATIVE TO REGULATION OF AIRLINES: DIRECT SUBSIDY ALLOCATED BY COMPETITIVE BIDDING

If the resulting route structure is judged to be somehow unsatisfactory by the political process, competitive bidding for contracts to serve unprofitable routes or to fly unprofitably large and fast aircraft into some cities will prove a far more efficient mechanism for promoting the industry than regulation. The key to the contract alternative is its reliance on the natural forces of competition in all markets, including the subsidized ones. Even if Congress desires to promote a more developed route structure than the competitive market would yield but without paying subsidies from general revenues—a circumstance which plausibly suggests that a subsidy should not be paid in any

event—an explicit intraindustry transfer, retaining the competitive market structure, is still feasible. Subsidized routes could be financed by a tax on airline tickets, for example.

Economists, myself included, blanch at most any proposal to engage in Government promotion of an industry, especially when financed by the profitable activities of the industry. Such cross-subsidization extracts its own costs in terms of efficiency of the economic system, and these are not trivial. But the point remains that the economists' arguments for unregulated competitive industry inevitably penetrates costs but provides no benefits, except that in the short run existing firms in the industry that have overinvested in response to perverse regulatory incentives experience losses when the protective shield of regulation is removed. The efficient way to promote an industry, or to force it is to respond to considerations not normally reflected in the marketplace, to do so directly through taxes, subsidies, and performance standards tied specifically to the policy concern of the Government.

Mr. BREYER. Thank you very much.

What we are trying to do is in part generate a debate, and I would like to know your views, and that will be helpful to develop questions with other people to testify.

First of all, I know you teach in this field, and I take it you are not experts in airline regulation, but you do read the things written both from the industry point of view and from other points of view; and you feel that you have an ability to compare the trucking regulation with a whole host of other regulations.

CONSENSUS AMONG ECONOMISTS

Is there any sort of consensus among economists on the question of air regulations? I have noticed a lot of economic issues. There are as many views as political points of view. Democratic economists say one thing, and Republican economists say another. Are people pretty much in agreement, or is it a political thing even among economists?

Mr. PECK. I would think there is a general consensus among economists that airline regulation is not economically efficient. I tried to look for defenses by industry scholars of the present regulatory processes by independent scholars for my courses, and the search has been in vain.

It seems to me there is an emerging consensus in economic writings that regulation no longer serves the public interest. Since there are

25,000 economists in the country, and we speak for three, there is obviously going to be a diversity of views, but less than other economic views.

Mr. MOORE. I would like to add that I was at the President's economic summit, and I put forward at that summit a package of 22 steps, mainly which dealt with regulation, several of which dealt with CAB regulation in particular. At that meeting there were 23 economists, many liberal Democrats, many conservative Republicans, some of the best known names in the profession.

Of the 23 people there, 21 endorsed the package or at least the general gist of the package, which was antiregulation. One of the persons did not just think it was irrelevant in connection with inflation, so that gives me some idea.

Mr. NOLL. When I spent 3 years at Brookings I was codirector of a service of research projects on regulation. Approximately 25 projects were undertaken, the political complexion of the researchers varied from the extreme right to the extreme left. All of the Federal regulations were studied in some detail and particularly the Civil Aeronautics Board were studied separately, some in the Republican council of economic advisers and some on the Democratic council of economic advisers.

They found out it was costing to the tune of several billion dollars a year. Economists are justifiably often criticized for failure to reach consensus on major policy, and in most instances that is right, that they are not people who do in fact reach consensus easily.

On the other hand, the nice thing about being a student of industrial organization and regulation is that you can get along with your colleagues, because you never have to run the risk of being dead wrong and saying regulation has been foolish in a particular sector. I know of no major industrial scholarly work by an economist or political scientist or lawyer in the last 10 years that reaches the conclusion that a particular industry would operate less efficiently and less equitably than with regulation. The conclusion is unanimous. None outside of the industry organizations themselves seriously contend that regulation is serving the consumers, or has a serious, positive benefit.

TRANSITION TO DEREGULATION

Mr. BREYER. Are the economists, even with this consensus, sufficiently sensitive to what undoubtedly are very real problems the industry has? If in fact you had deregulation, isn't there a risk you would end up putting a lot of companies out of business? If they don't

make profits, they won't be in business. Is not there some kind of real risk that despite consensus in the classroom, out in the real world deregulation means you will force airlines out of business and end up with significantly worse services?

Mr. NOLL. I think as a characterization of the transition phenomenon, there is a lot to be said for it. Why does it like to be regulated? The answer is quite simple. Ever since 1938, 36 years, almost 37 years, the industry has made investment decisions, routing decisions, on the basis of the assumptions the industry will be regulated.

The excess capacity of seats is not magically construed out of the air. So investment plans are put forth on the basis of the assumption that planes will be flown half empty.

In the transition scenario from the regulated industry to the unregulated industry, there are going to be financial difficulties by some of the firms, not by all of the firms, in the industry. Some of the firms will prove better able to survive than others. I would expect there would be bankruptcies, or not bankruptcy, but operating in a deficit. That is testimony of inefficiency of regulation. The reason there would be losses is because a whole inefficient industry structure has been built upon the regulation institution, a lot of decisions have been made because they are protected by regulation.

Mr. BREYER. Are you saying we will end up with the possibility of not having an airline industry?

Mr. NOLL. I am not finished yet. The first point to remember is what financial failure means. It means a lot of managers will be put out of jobs. The people who are now directing airline companies are directing because of their sophistication in dealing with regulations. That will no longer be a talent for which airlines will pay a high salary.

Mr. BREYER. Are you saying that at the end of the line we will have an airline industry, or that we won't? Is there a big risk or a little risk?

Mr. NOLL. Airplanes will be there, different people will own them, different firms perhaps, different managers of those firms will be in existence. But the point is as long as you can make money flying people from New York to Los Angeles, there will be people and airlines ready to do that. There will be a transition when the ownership and the management changes, and the more gradual you make the transition and the more you compensate the people for the transition, the less shakeup there will be.

Mr. BREYER. Professor Peck.

Mr. PECK. You have to distinguish between the long run and the short run.

The longrun prospects of an airline industry operating without regulations is very good. It will be a good industry.

There is the transitional problem which economists have not really addressed as seriously perhaps as it deserves. It is partly a question of equity, partly a question of efficiency of a special kind moving to a new and better competitive situation.

The proposals for deregulation usually are stated so that they allow for a transition. One of the witnesses this morning said we would not deregulate overnight.

But I think the transitional problems are solvable if——

Mr. BREYER. Down the road the airline industry would be profitable, eventually?

Mr. PECK. That is right.

Mr. BREYER. Why are they so against this then?

Mr. PECK. I am reminded of the remark the best of all monopoly profits is a quiet life. It may be true of our regulations; people are used to doing business in a certain way. They are also concerned about transitional problems. I would be, too, if I were a president of an airline.

EVIDENCE OF OTHER UNREGULATED INDUSTRIES

Mr. BREYER. You would ask the industry what would happen in the long run? You think the problems could be overcome? Is there any reason to believe if you have fears of competition, people won't start cutting back in safety and we won't have a lot of unsafe planes flying around? Don't you have to worry about people cutting back on seatbelts or oxygen masks?

Mr. NOLL. If it would be profitable for them to do it in an unregulated environment, if there were evidence there would be planes falling out of the skies like California and Texas.

Mr. BREYER. You mean historically they are not regulated to the same extent in California and Texas, is that your point?

Mr. NOLL. That is my point.

Mr. BREYER. They are regulated from the point of view of safety.

Mr. NOLL. That is right.

Mr. BREYER. But they don't have fare regulations to the same extent.

Mr. NOLL. Yes.

Mr. MOORE. British deregulation of trucking, the same problem of transition came up, and if you face the transition over enough period of time and do it appropriately you can minimize it. There will still be these transitional costs, and that is why the airline fears it, but in the long run the industry will perform——

Mr. BREYER. Trucking was deregulated in England, and the net result was the firms were just as profitable?

Mr. MOORE. Just as profitable as they were before, and they were not in fact highway safety improved, and prices came down.

DESTRUCTIVE COMPETITION

Mr. BREYER. There are a couple—I am just getting rather quick answers, I know—but there are a couple of things that concern me.

People are generally concerned whether in an unregulated environment you would discover destructive competition. Again and again that argument is made. Is there any reason to think you would not have destructive competition, such tremendous fare competition that in fact one airline drives everybody out of business or they all go under and you end up without service. What is the risk of that happening?

Mr. NOLL. That is an extremely difficult question to answer briefly. Here are a few kinds of responses to it. No. 1, it is not obvious that will ever happen, historically, in any industry that did not have a scale economies, which is to say if there exists an industry where there are no true economies gained to being a monopoly, it is much cheaper to merge than to try to force the other guy to go bankrupt. Historically, in industries where unregulated competition has prevailed I do not know of a single instance where that has happened.

Second, in the unregulated markets—or the markets that at least for a time were unregulated—this has not happened. PSA is not an airline running business losses to the point of doing in big companies like United.

Another point is that antitrust laws do exist, and one of the clearest prohibitions in the antitrust laws is predatory price cutting, that is cutting prices, low costs to drive somebody else out of business and then raise costs. There will always be that route.

Finally, in the case of the airline industry, even if in the short run someone could, if airline A could drive airline B out of a given market, as soon as the price went back up the airline would be able to jump right in. Airlines will not disappear from the face of the Earth. There will always be airplanes you can use to enter the market again.

So unless a price cutter is to have his price be below cost forever he will not find it in his interest to engage in such behavior.

Mr. MOORE. Pan Am and TWA offer charter service to Europe and have not driven other charters out of business. They have complained about the competition in these smaller firms.

The same point was made by trucking. There is no expense in England with predatory pricing and monopoly. It just does not occur.

Mr. BREYER. I think that is fine.

[The prepared statements of Messrs. Peck, Moore, and Noll follow:]

PREPARED STATEMENT OF MERTON J. PECK, PROFESSOR OF ECONOMICS,
YALE UNIVERSITY

REGULATORY REFORM OF THE CIVIL AERONAUTICS BOARD

I am pleased to have the opportunity to appear before you. My specialty is the economics of regulation, and for the past two decades I have taught courses

and published on this subject. In 1968 I served as a member of the Council of Economic Advisers, with responsibility for regulatory policy. I have not, however, written on the airline industry. My comments will be based on my general knowledge of regulatory policy.

In 1970, an MIT economist, Paul MacAvoy, edited a book which he called *The Crisis of Regulatory Commissions*.¹ At the time I thought the title an unseemly one, since the custom in academia is for colorless and somewhat pedantic titles. But I now think that Professor MacAvoy was right; there is a crisis in the regulatory commissions.

In recent years, economists have been almost uniformly critical of Federal regulatory commissions. Indeed, I have sought for my courses recent scholarly publications that find some good in present policies. The search has been in vain. The uncharitable might say I have not looked diligently enough, but it seems to me that there is an emerging consensus in economic writings that regulation no longer serves the public interest. A review of these writings leads me to make three points:

1. Regulation is frequently very costly to the American public.
2. Regulation ought, in general, to be reduced. We would be better off with less regulation and more competition.
3. Congressional hearings on Federal regulatory policies such as those initiated here are needed.

1. Regulation is generally very costly to the American public

Several recent studies have shown that the costs of regulation in terms of economic efficiency are substantial.² And for airlines, we have all taken trips with practically empty airplanes, and yet airline fares keep climbing.

A Yale doctoral student of mine, Michael Pustay, has attempted to quantify such casual observations.³ There are two factors which he recognized in his calculations. More flights mean shorter waiting times. That is worth something, and so Dr. Pustay put a valuation on reductions in waiting time. More flights also mean higher costs, and Pustay used the CAB costing formula to estimate those added costs. Pustay applied his technique to 289 city-pairs for 1969. For each city-pair he used a model developed by another economist, George Douglas, to establish the optimal number of flights, recognizing both the costs of added flights and the savings in waiting time. He then estimated the net cost of having more daily flights from the optimal number.

Pustay's results are striking. If waiting time is valued at \$10.00 an hour, the added costs in 1969 were \$456 million annually, about 9 percent of airline fares at that time.⁴ Of course, if waiting time is valued at more per hour, then more flights become economically justified. Even at \$20.00 an hour the excess costs were \$273 million annually. Pustay's results suggest that American airlines in 1969 were flying the right amount of flights for the \$60,000 a year man. Everyone else was being offered too many flights and too high fares.⁵

¹ Paul W. MacAvoy (ed), *The Crisis of Regulatory Commissions*, W. W. Norton Company, 1970.

² Studies for surface transportation are reviewed in Lee I. Sparling, "Rate Regulation and Freight Traffic Allocation, A Review and Revision," Social Science Working Paper, #68, California Institute of Technology, 1974. For a study of the costs of regulation in television, see Roger Noll, Merton J. Peck, and John J. McGowan, *Economic Aspects of Television Regulation* (Brookings Institution 1973).

³ Michael W. Pustay, *The Effects of Regulation on Resource Allocation in the Domestic Trunk Airline Industry*, Yale Doctoral Dissertation, 1973.

⁴ *Ibid.*, p. 117.

⁵ Note that Pustay's results are for over-supplied city-pairs; there were other smaller markets that had too few flights. George W. Douglas and James C. Miller used a somewhat different approach and estimated the costs of excess capacity in 1969 as \$366 million at a \$10 per hour valuation of waiting time. See *Economics of Regulation Domestic Air Transport* (Brookings Institution, 1974) p. 172.

For particular city-pairs, the added costs are more striking. Chicago to Los Angeles is an example. Pustay calculated that if waiting time were valued at \$10.00 per hour, the optimal number of daily flights would have been 20 with a 73 percent load factor. In fact, in 1969 there were 30 flights and a 49 percent load factor. The actual fare was \$106. If there had been an optimal load factor, the cost per passenger would have been \$50.⁶

Pustay's results have several limitations. The approach may over-value waiting time. It is a market-by-market analysis and some excess capacity may be justified because an aircraft serves several city-pairs. The calculations are for 1969; since then load factors have improved somewhat.

Still, the magnitudes of Pustay's results are so large that they clearly support what common sense suggests. Flying planes half empty is not good economics.

2. *Regulation ought to be lessened and more reliance placed on competition.*

These added costs are likely the result of regulatory policies. Regulatory commissions have been loathe to see price competition emerge. At the same time regulated firms, like other American businesses, have been eager to expand their market shares. With price competition tabu, the competitive rivalry is channelled into service competition. That often takes the form of adding capacity to provide more frequent service which in turn raises costs. The higher costs as they spread to the industry generally can then become the basis for a request for a rate increase.

One solution is regulation of capacity, but the better solution may be in the opposite direction—to allow more price competition. Consumers should have the choice between service and price that unregulated markets generally provide. And there seems no better way to ensure such choice than through allowing price competition.

3. *Congressional hearing on the Federal regulatory policies are very much needed.*

Congressional hearings are a highly desirable forum in which to raise the critical issues of regulatory reform. I have appeared as an expert witness in regulatory proceedings. I have been impressed with the care and diligence of regulatory officials as well as their concern with the public interest. But usually the issues are narrowly drawn and there is no occasion to raise broader issues as, for example, the desirability of more price competition.

Congress now has a full agenda of pressing problems. One should not urge adding another one lightly. But regulation seems badly askew; there is a regulatory crisis. Inflation and rising energy prices appear to have made existing regulatory policies even more expensive to the public. And many regulated firms themselves are often in trouble, from Pan Am to the Penn Central.

I would add, however, Mr. Chairman, that the issue of regulatory reform is not a new one. President Kennedy's Transportation Message of 1962 was a forceful plea for deregulation. The Kennedy message called for "greater reliance on the forces of competition and less reliance on the restraints of regulation."⁷ The legislation that accompanied that message did not fare well in Congress. And yet it seems to me that President Kennedy's plea for deregulation was good economics then; it may be even better economics today.

⁶ Pustay, op. cit. p. 123.

⁷ Quoted in Ann F. Friedlander, *The Dilemma of Freight Transportation*, Brookings Institution, 1970, p. vii.

PREPARED STATEMENT OF THOMAS G. MOORE, SENIOR FELLOW, THE HOOVER INSTITUTION ON WAR, REVOLUTION, AND PEACE, STANFORD UNIVERSITY

THE REGULATORY REFORM OF THE CIVIL AERONAUTICS BOARD

It is a great honor and privilege to be here today to give my views on this important topic. This subcommittee must be commended for leading the way in exploring a vital topic—regulatory reform.

As you know, next year marks the 200th anniversary for the founding of this great Nation. It also marks the 200th anniversary of the publication of one of the world's greatest books, *The Wealth of Nations*. I would like to take the text for my statement today from Adam Smith's opus. While he wrote in 1776, it is still true today that:

No regulation of commerce can increase the quantity of industry in any society beyond what its capital can maintain. It can only divert a part of it into a direction into which it might not otherwise have gone; and it is by no means certain that this artificial direction is likely to be more advantageous to the society than that into which it would have gone of its own accord.

Adam Smith understated the case. My research and that of others show that regulation produces wastes, higher prices, and often poorer service. My work has covered ICC regulation of surface freight transportation, the regulation of trucking in Europe, the regulation of electric utilities by state commissions, occupational licensing, and the regulation of stock market margin requirements. As a result of these studies and the studies of others it is possible to draw some conclusions about regulation as a whole. Regulation's main effect is to increase the cost of the product or service offered; normally consumers will have to pay higher prices; even the regulated gain little.

Transportation regulation, which I have been studying in recent years, is particularly relevant to the topic of these hearings. I found in studying the regulation of surface freight transportation by the Interstate Commerce Commission that it had increased the cost to our country of moving our goods between \$3.8 and \$8.8 billion in 1968. The cost today with inflation is obviously much higher. This cost stems from ICC efforts to insure that each of the firms under its control is profitable. In order to insure profitability of even inefficient firms, the ICC restricts competition by attempting to give each firm a limited market that few if any other firms may serve. In order to restrict competition firms are often granted authority to carry goods from one part of the country to another but without authority to carry goods on the back haul. Route restrictions have forced trucking firms to drive hundreds of miles out of their way or not offer a through service between points they are authorized to serve.

I have just returned from studying regulation of trucking in Europe. West Germany has the most strict regulation in Europe, controlling both rates and trucking capacity. Trucking rates in West Germany in 1973 were over 50 percent higher than in Great Britain which has no economic regulation whatsoever. But interestingly enough profits appear to be as high or higher in the uncontrolled British situation than in West Germany.

Economic theory and some evidence have shown that regulation of utilities tends to inflate costs. Because regulators permit firms to earn a certain rate of profit on their investment, regulated utilities have a tendency to substitute capital, which goes into their rate base, for labor. This means that they can earn larger profits although costs of production as well as utility rates will be higher. My own research indicates that utility rate regulation has not appreciably re-

duced rates below what the firms would charge in the absence of such regulation. Under some plausible assumptions rates are actually higher for electric utilities than they would be if there were no controls.

The problem is that regulation as a process is inherently faulty. No rewriting of the regulatory statutes or appointment of better regulators can do more than make some minor improvements in a bad situation. There are a number of reasons why regulation is inherently faulty, some of which I will touch on, others will be discussed in more depth by my colleague this morning, Roger Noll.

I would like to emphasize the compulsion of each regulator to protect his particular industry. In some cases the act establishing the regulation makes specific the need to promote the health of the industry. For example the Civil Aeronautics Act specifies in Title I that:

In the exercise and performance of its powers and duties under this Act, the Board shall consider the following * * * as being in the public interest * * * (a) The encouragement and development of an air-transportation system * * * (b) The regulation of air-transportation in such manner as to * * * foster sound economic conditions in, such transportation * * *.

Given that mandate how can the CAB idly stand by while Pan American fails? It can't. In 1974 the CAB approved four rate increases for international operations to bail out Pan Am and TWA.

Failure of a major company regulated by an agency is considered to be a failure of that regulatory agency. But under a few market system, both the carrot and the stick are needed. Failure is necessary to force firms to meet the needs of the public. Even where an act establishing a regulatory commission does not specify that a prosperous industry is important, regulators will believe that unless the regulated firms earn profits they will be unable to serve their customers. Thus the regulators will consider it their duty to the public and to consumers to make the industry profitable and one of the most efficient ways to accomplish that is to reduce competition.

Your committee in hearings last fall investigated a clear example of the tendency of regulation to restrict competition. As your excellent staff report brought out, the CAB was attempting to set minimum charter fares to reduce competition. To quote from your report, such minimum rates were sought "in order to help Pan American with its financial problems."

Prohibiting regulators from restricting competition in order to protect competitors won't work. The Congress in the Transportation Act of 1958, wrote a clear prohibition on protecting one mode from competition of another, yet the ICC has continued to do just that. Protecting competitors and reducing competition is inherent in all economic regulation.

In inherently competitive industries such as airlines and trucking it is virtually impossible for the regulators to eliminate competition. The best the regulators can do is to eliminate price competition and thus to hold prices up. But this simply stimulates firms to compete in non-price areas. A few years ago the international airlines engaged in a sandwich war to attract passengers. More recently in the U.S. we have witnessed a seating war, with airlines competing to offer the most comfortable seats in coach class. Last fall there was a free drink war. Since rates are identical due to CAB regulation, airlines compete by purchasing the most up-to-date equipment and phasing out older and slower equipment long before it would be obsolete under a more rational system. No scheme of regulation that permits management to manage the firms can eliminate non-price competition. There are an infinite number of ways firms can compete. As a

result of the non-price competition, most of the profits originally generated by high rates are dissipated.

In addition to the inevitability of non-price competition, which tends to erode the profits that the regulators are attempting to guarantee the industry, the firms compete for regulatory favors. If a route to Hawaii or Florida is profitable, firms can and will spend millions in legal fees and legal maneuvers attempting to win the franchise or to block others from securing the franchise. For example, suppose that a firm is earning one million in clear profits a year from a route. It is then worth spending up to a million a year to block the introduction of competitors. To the would-be competitor it may be worth half a million if he enters. As a result the potential entrant will be willing to spend large sums to secure a license, perhaps as much as two and a half million dollars. The entire profit on such a route can be dissipated in this competition for licenses.

In many ways regulation is the worst of all worlds for everyone. While the regulators try to guarantee profits, non-price competition and legal competition work to eliminate the profits. Consumers pay high prices but the regulated firms don't reap the benefits. Costs are inflated; profits are no greater than they would be without regulation; and prices are higher.

PREPARED STATEMENT OF ROGER G. NOLL, PROFESSOR OF ECONOMICS, CALIFORNIA
INSTITUTE OF TECHNOLOGY

THE CAUSES OF REGULATORY FAILURES

During the past 15 years an impressive literature has developed in economics, law and political science evaluating the performance of regulatory agencies. To an extent uncharacteristic of academic research, this literature is remarkably consistent in its principal finding. Most scholars of public policies toward business have come to believe that public utility regulation—the control of prices, profits, service quality and the entry and exit of firms from the industry—is an exceptionally costly, ineffective instrument of government policy. Numerous studies published in the last few years have identified gross inefficiencies and inequities in the key sectors subject to regulation—transportation, communications, energy—that can be traced to seemingly nonsensical rules and policies of regulatory agencies.

The purpose of my statement is not to discuss in detail the findings of these research studies, since many of the authors of such studies will be heard at these hearings. Instead, this statement deals with the causes of regulatory failures, with the purpose being to contribute to the dialog about the possible mechanisms for reforming or replacing regulatory institutions.

In establishing institutions to control the market activities of private firms, government is faced with two dilemmas. These dilemmas are probably unresolvable, and thereby guarantee that the agency will impose serious social costs if it tries to do the job for which it was created.

The first dilemma arises from the incompatibility of structuring a decision process that is "fair", e.g., decisionmakers are accountable for their actions, individuals are accorded due process, etc., and that makes decisions with dispatch. It is inconceivable that the kinds of power to redistribute wealth that

inheres in regulatory institutions would be delegated to any bureaucracy without subjecting the decisions to judicial review and without giving affected individuals the right to plead their cases before decisionmakers.

To safeguard the rights of individuals against capricious and arbitrary decisions of an agency requires establishing decisionmaking procedures that normally cause decisions on important issues to be protracted. This can create serious problems in three types of circumstances: when rapid inflation pushes costs up and firms can not respond to cost increases by raising prices until a protracted regulatory review has been completed, when a technological development that would lower costs and improve service quality can not be fully exploited without regulatory review, and when an innovative new firm seeks to enter a regulated market but must first win the approval of the regulators. The last two effects significantly reduce the incentive to the firm to be innovative, since to all the risk and costs of innovation are added the expense in time and resources of a regulatory proceeding, while the risk of a more innovative competitor capturing a superior market position is reduced.

The second major dilemma of regulatory institutions reflects the trade-off between an expensive regulatory process and a process that is insulated from the individuals affected by its outcomes. In part because the preservation of accountability and due process through judicial review makes participation in the regulatory process expensive, and in part because the vast majority of persons who are affected by regulatory decisions are not effectively organized to represent themselves in regulatory proceedings, the flow of information and proposed rules to the agency is one-sided. A passive agency that relies upon the evidence supplied by participants in the process will inevitably make decisions based upon incomplete assessments of the issues at hand: an agency that can generate its own, independent flow of information on every important case will be much more expensive to operate. In fact, none of the federal regulatory authorities engaged in price and profit regulation devotes anywhere near the resources to generating information for use in regulatory proceedings that is committed by the industries they regulate.

The recent debate over the regulation of cable television is an illustrative case in point: the final regulatory rules were worked out by a coalition of broadcasters, cable system owners and program producers. While each of these groups cast their arguments defending their own positions in terms of the beneficial effects a system satisfying them would have on society at large, and while the FCC devoted some staff resources to investigating the stake of viewers in the issue, nevertheless the final compromise was hammered out exclusively by the well-represented special interests, and was adopted by the FCC explicitly because none of the three groups would appeal the compromise, legally or politically.

These endemic problems of regulation do not necessarily lead to the conclusion that under no conditions should industry be regulated. All that they imply is that certain inevitable costs are to be expected. Generally, these costs will be higher if: 1) the sophistication required to determine the true technical and economic conditions of the industry is greater, 2) the greater the portion of the effects of regulation that is diffused over a large, heterogeneous group that is unlikely to be effectively organized, and 3) the more uncertain and rapidly changing the economic environment in which the regulated firms operate, such as is the case during a period of rapid inflation or deepening recession.

The cost of regulation is also likely to be greater the more competitive the regulated industry. This is because entrenched firms are to some extent protected from competition by the slowness and costs of procedures that must be followed by new entrants into a market. In addition, the regulatory forum allows competitive firms to engage in a far greater degree of collusive behavior than would be permitted in a normal competitive circumstance. And by exercising some control over the information flowing to the agencies, while constituting the primary threat of appeal to the agency's decision, the industry can push the agency to make policies and adopt rules that enforce cartel-like behavior upon the firms in the industry. These type of actions—the mutual service reduction agreements among the airlines that were promoted by the CAB are good examples—would surely be antitrust violations in the absence of the protective umbrella of the regulatory statutes.

The principal conclusion of the preceding remarks is rather straightforward: one should keep in mind the costs of regulation when deciding whether to regulate any particular industry, and whether to continue to regulate an industry that was subjected to regulation when circumstances were far different from the present. For example, if an industry becomes increasingly able to support a competitive market structure as time progresses, the expected costs of regulation will increase while the expected benefits of regulation will decline.

Presumably the argument for regulation of most industries is more complex than simply the avoidance of monopolistic practices. In the case of domestic airlines, regulation has a certain promotional feature, owing to the affects attributed to an extensive air route structure on economic development, the distribution of economic activity, and national defense. Without debating the merits of these contentions—which are, of course, eminently debatable—the issue remains which policy instrument can most effectively generate the desired route structure. The difficulty with the regulatory approach is that this explicit promotional aim gives the regulatory authority an even greater industry-orientation than the institutional dilemmas would normally produce. On the industry's part, promotional, cost-plus regulatory policies generate overly optimistic investment plans since the incentive for investment is heightened by the belief by firms that regulators will act to ameliorate at least some of the financial losses that will be suffered if an investment plan proves too optimistic. On the agency's part, financial failure of a regulated firm is at best an embarrassment and at worst a serious problem: the failure may be attributed to the decisions of the agency, and, in any event, will, at least temporarily, cause the pattern of service to fall short of the promotional objective that led the agency to acquiesce to overinvestment in the first place. The result is a continuing spiral of overly optimistic expansions—too many new planes flown too frequently over too many routes—followed by policies propounded by regulators to bail out their charges.

Deregulating a competitive industry will undoubtedly have some significant adjustment effects. Prices and profits will probably fall, dramatically so in the short run, some routes will be abandoned or be subjected to sharp service curtailments, and some firms may face bankruptcy and reorganization. But in the long run, more and better service and normal profits can be expected and at reduced prices, as firms learn to operate more efficiently and as the price system is used as a signaling device for tailoring service to user tastes.

If the resulting route structure is judged to be somehow unsatisfactory by the political process, competitive bidding for contracts to serve unprofitable routes

or to fly unprofitably large and fast aircraft into some cities will prove a far more efficient mechanism for promoting the industry than regulation. The key to the contract alternative is its reliance on the natural forces of competition in all markets, including the subsidized ones. Even if Congress desires to promote a more developed route structure than the competitive market would yield but without paying subsidies from general revenues—a circumstance which plausibly suggests that a subsidy should not be paid in any event—an explicit intraindustry transfer, retaining the competitive market structure, is still feasible and subsidized routes could be financed by a tax on airline tickets, for example.

Economists (myself included) blanch at most any proposal to engage in government promotion of an industry, especially when financed by the profitable activities of the industry. Such "cross-subsidization" extracts its own costs in terms of efficiency of the economic system, and these are not trivial. But the point remains that the economists' arguments for unregulated competition are not dependent upon their position on cross-subsidization, and the two issues should not be confused. Regulating a competitive industry inevitably generates costs but provides no benefits, except that in the short run existing firms in the industry that have overinvested in response to perverse regulatory incentives experience losses when the protective shield of regulation is removed. The efficient way to promote an industry, or to force it to respond to considerations not normally reflected in the marketplace, is to do so directly through taxes, subsidies and performance standards tied specifically to the policy concern of the government.

Mr. BREYER. I think it will be 2:30 when we reconvene this afternoon.

[Whereupon the subcommittee adjourned at 1:25 p.m., to reconvene at 2:30 p.m. that same day.]

AFTERNOON SESSION

Senator KENNEDY. The subcommittee will come to order.

Our next witness is Mr. Alfred Kahn, chairman of the Public Service Commission, State of New York, who taught economics at Yale University and served as a senior staff member of the economic advisers, and is presently on leave from Cornell University. He has written extensively in the area of economic regulation.

Mr. Kahn.

STATEMENT OF ALFRED E. KAHN, CHAIRMAN, NEW YORK STATE PUBLIC SERVICE COMMISSION

Mr. KAHN. I am very honored by your invitation to testify here.

I have been asked to hold my testimony to 10 minutes, which means I will have to talk terribly fast. I will make no effort to read my statement.

I hope I am not here under false pretenses. I have been a student of economic regulation for some time and now a practitioner, but I am not an expert on the airline industry and do not presume to come to you with explicit recommendations.

There are certain common tendencies and patterns in regulation, however, which I would like to bring to your attention. In fact, I will make four points which may be illuminating to you, at least 10 minutes worth. If you try to follow my statement you would not succeed.

REGULATION IS AN IMPERFECT INSTITUTION

First, it is a commonplace observation that regulation is a very imperfect institution. I think it is essential where competition is not feasible, and of course that is where I happen to operate, in New York State, that is to say where competition is inconsistent with economies of scale. But it cannot do what competition does. It cannot innovate. It cannot force companies to be efficient. It cannot force management to be enterprising. It cannot make companies risk their own capital. So regulation has an inevitable large element of cost-plus in it with all the familiar deficiencies of such arrangements.

REGULATION IS ANTITHETICAL TO COMPETITION

Point No. 2: Although there are many ways in which it makes sense to try to introduce competition into a regulated system, still fundamental competition and regulation are antithetical.

I think, possibly the airline industry performs better than it would by virtue of the presence of some competition in it. But fundamentally, there is something inherent in regulation that makes it hostile to competition.

By the way, this has nothing to do with honesty or corruption or irresponsibility of regulators. It has to do with the fact that under competition nobody is responsible for supply, no single firm has an obligation to serve. The protection of consumers, the assurance of supply comes from the impersonal functioning of the competitive market.

In a regulatory situation, in contrast, we rely on chosen instruments, identifiable firms and the regulator himself.

As a result, I, as chairman of the Public Service Commission of New York, feel a kind of direct personal responsibility for seeing to it that lights will go on in 1985 when people flick on the switches. That means that I have to be very solicitous of the financial health of those chosen instrument companies. Similarly, every responsible airline regulator will undoubtedly tell you that he has an enormous responsibility for the continuation of ample, safe, and economical air

service. That inevitably produces a distrust of price competition. It is a nuisance, a threat to the financial health of the chosen instruments. Competitive innovations may suddenly render obsolete a whole bunch of equipment. Competitors have an inherent tendency, in the words of regulators and regulatees, to skim the cream off the market, which is only to say they tend to go in naturally where prices are high, and they stay out where costs are high relative to price. So the regulator will ask you how they are supposed to supply continued service in bad weather as well as good, in the winter as well as the summer, over lightly-traveled as well as heavily-traveled routes, if competitors are allowed to come in and skim off the cream off the profitable operations that support the unprofitable. So, to a regulator, competition is a nuisance.

This means that where you are dealing with an industry that is structurally competitive—the brokerage business on security exchanges, trucking—regulation typically involves cartelization. It means holding prices up, not down, it means preserving market shares of existing firms. Now, that is a distinction not often made. Ask yourself when you look at a particular instance of regulation: Is it functioning to keep price down, which I think is my job in New York State, or to keep prices from falling, which often happens in transportation? Or again, is it trying to hold the quality of service up, or is it trying to hold service competition down, as I think you will find in the airline industry. That is my second point. There is a basic antithesis here. You have to choose.

REGULATION PRODUCES CARTELIZATION AND INEFFICIENCY

No. 3, in these structurally competitive situations, regulation and the cartelization that goes with it, it is terribly inefficient in terms of producing at the lowest possible cost. In some ways, it is the worst of all possible worlds. It is worse than single-firm monopoly; it is worse than competition, no matter how imperfect competition is.

It is hostile to letting business go into the most efficient firms. Instead, it tries to preserve the market shares of all firms, high-cost and low-cost. Think of the ICC and its limitations on competition by the railroads, often when they can reach out and take business at a lower incremental cost, not letting them do so. Think of the prorationing of crude oil. To the extent they cut back output, they did not cut back equally, but instead they imposed stringent controls on the low-cost wells, at the extreme of holding them down to 8 days of production a month, and exempted the high-cost marginal producers. They had higher quotas for deep wells, because they were more costly.

Cartels encourage inefficiency in another way. If you hold price up, it induces people to try to expand capacity. Inside the cartel, by drilling additional oil wells or scheduling more flights, or outside the cartel, look what is happening in the oil industry today. The result is, if the cartel is going to function, it has to cut back output more and more, so that everybody operates at an inefficient level of capacity.

That is my third point: Cartelization tends to be terribly inefficient.

Before getting to my fourth point, I would like to explain the simple economics of why cartels produce inefficiency. I will do so in the form of a series of propositions, but with enough illustrations to demonstrate that I am talking about the real world. If regulation limits competition, it must be because some competition would otherwise be feasible: Ability and will to compete are therefore present. And if the regulation is effective, it will hold price above the costs of at least some producers or potential producers. I have already described how this sets up persistent temptations for firms already inside the cartel to expand their capacity and output, and for firms outside the market, and possibly outside the boundaries of the cartel, to enter, increasing the aggregate capacity hanging over the market and creating the necessity for progressive cutbacks of output quotas, if the price is to be sustained. These temptations cease only when output is so curtailed, and unit costs of production so increased, by the production cutbacks that entry and investment in new capacity are no longer attractive.

REGULATION INDUCES EXCESS PRICE AND SERVICE TO THE EXTENT THAT THE INDUSTRY IS NATURALLY COMPETITIVE

For exactly the same reasons, and this is my fourth point: Controls over price competition are subject to evasion because of the incentive they provide for accentuated quality and service rivalry, limited only by the ingenuity of businessmen in seeking new methods of enticing customers to them. I do not have to cite you the airline examples of that, the strenuous competition, instead of via price, in adopting the most modern equipment, in the frequency in which they schedule their flights, in attractive hostesses, in-flight entertainment, food and drink.

Let me state the general underlying principle: If regulation or cartelization prevent price from falling to costs, then, to the extent that competition continues to prevail, it will tend to raise cost to the level of price.

One of the most flagrant examples of this—and it is a historical one—I do not know whether it represents CAB policy today—was the refusal of the CAB to let carriers with older piston equipment reduce their rates sufficiently below the level for jet fares to keep that piston equipment in service as long as economically justified. Carriers asked the CAB to let them reduce those rates, the CAB said no it would not permit them. Now, if the prices are kept equal, then of course nobody is going to go on a piston craft.

What is wrong with service competition of this sort? Surely in some degree it is obviously desirable. The more flights you have scheduled the more convenient it is. What is wrong with it, is that customers, if you do not have price competition, are not given a choice, and so you have no way of knowing whether your quality competition is excessive. The only way of testing whether the increment of in-service quality involved, for example, in more intensive scheduling is worth the higher cost, is to offer shippers or travelers the choice between lower rates and less frequent operations, on the one hand, and higher rates to cover the costs of more frequent scheduling, on the other. The same flights that provide no food, drink, or entertainment, on the one hand, and sumptuous flights, on the other, and as many other combinations as feasible in between.

In my paper I refer to the same tendency in the security brokerage business. They compete in salesmanship, and free advice. What about the fellow who says I do not want salesmanship, I just want to consummate a transaction?

That, of course, is what competition does, it offers you such choices. Now, in these circumstances, it is understandable that regulators have constantly to spread the net of their regulation. If they can raise prices, then people want to expand output, so they have to control output. If they do that, they find it attracts new firms into the market, and then they have to keep firms out of the market. If they do that and still hold the price up, and find this attracts imports, then they have to put quotas on inputs. If they prevent price competition, and firms escape it by engaging in destructive quality competition, then they find themselves forced to put a lid on quality competition, too.

All these tendencies of regulation in a structurally competitive industry inescapably raise the question of whether it would not be preferable simply to abandon economic regulation, and open the field to competition.

Did I make it in 10 minutes?

THE GENERAL CONDITIONS OF DESTRUCTIVE COMPETITION

Senator KENNEDY. What about the other side of the coin, though, what about the destructive competition? Don't we have the most elaborate service of air transportation in the world, and probably the safest? That is certainly worth something to the traveling consumer. How can we be so sure that if you allow competition you will not get destructive competition and uncertainty and unreliability?

Mr. KAHN. Those are real questions which explain my qualification at the beginning. I am not going to be able to give you decisive answers. But I do have a few suggestions of places to look.

First, no businessman protected from competition ever believes competition is anything but destructive. In the same way, he does not use the word "competitor" he uses "chiseler."

Second, there are conditions which are conducive to destructive competition, and you have to see if they apply in this case. Where you have very heavy capital costs, or enormous economies of scale such that marginal costs are typically way below average costs you will have a tendency for competition to drive rates down to that level. You will want to look and see whether that is really true in this industry. Third, is capital immobile? Once it is there, does it tend to get stuck and not be able to get out?

Well, in trucking, of which I have a greater knowledge, I emphasize that trucks are very mobile, they can move from one market to the next. Moreover, a large part of your costs are variable; so prices cannot go down very far. If you can move, especially with transportation equipment, you can move to another market, competition in any market cannot be destructive.

Fourth, is entry likely to be excessive? Well, I am very skeptical that you will have rapid entry into airline markets. It is not an easy thing, where you have product differentiation in these markets and the attractiveness of known brands, I am skeptical of that.

Look at some areas where you have unregulated competition. You have probably heard the story of California and Texas. I would look very carefully at those instances. It appears they have effective competition, and it is not destructive.

Senator KENNEDY. Do you think it would be useful to have somebody on the regulatory commission who is an economist?

Mr. KAHN. Why I think it would be marvelous. No, I really believe that, Senator Kennedy. It is amazing to me how few economists there are. I think it might be fatal if they are all economists.

There is a perspective that an economist brings that is very important. An economist tends to think in terms of benefits versus costs, and every decision we make in our society today is a benefit-cost measurement, whether we like it or not.

Senator KENNEDY. Thanks very much. I hope you make your plane. It was very interesting and very helpful.

[The prepared statement of Mr. Kahn follows:]

PREPARED STATEMENT OF ALFRED C. KAHN, CHAIRMAN, NEW YORK STATE PUBLIC SERVICE COMMISSION

I am honored by your invitation to testify before your subcommittee on the regulation of the airline industry. I trust I do not appear here under false pretenses. I have for many years been a student of the economics of regulation, and now find myself a practitioner, but I do not consider myself sufficiently expert on the airline industry to presume to give you specific recommendations about how it should be regulated, or whether it should be regulated at all.

And yet, while it is true that each regulated industry is in some degree unique and the policy with respect to it must be designed in the light of its own peculiar characteristics, it is also true that regulation manifests certain tendencies and raises certain problems common to all industries. I hope therefore that, by describing to you those general tendencies and problems that seem to me particularly pertinent to airlines, I may be of help to you in your effort to assess the system of regulation that we apply to that industry today in the United States.

The first observation I would like to make is that competition and the kind of regulation we practice in the public utility industries—and that is the only kind of regulation I am concerned with in this testimony¹—are inherently antithetical. While the choice between these two control mechanisms is rarely absolute, as I will point out presently, society typically must in each individual instance choose whether to rely on regulation or on competition to protect the public interest; it cannot typically have both. It is commonplace that direct regulation becomes necessary where competition is not feasible; regulation is imposed because competition is thought to be ineffective. And it is now also commonplace that regulation has a strong inherent tendency, in turn, to control and eliminate competition that would otherwise prevail.

This is so not only for the superficial reason that regulation, by definition, typically involves the imposition of limitations on competitive entry and independent competitive action in the determination of price. It is also because regu-

¹ Government influences the functioning of the economy generally in a wide variety of ways, for example, by regulating the supply and availability of money, enforcing contracts, providing subsidies or tariff protection, prohibiting unfair competition, imposing standards for packaging and product contents, licensing entrants into various trades and professions on the basis of qualifications, and in the case of airlines, licensing pilots and imposing various other rules in the interest of safety. But all of these instances of regulation, at least in principle, are intended not to supplant the competitive market as the principal instrument of social control, but to supplement it to remove its imperfections, in theory to make it work better. The regulation that I am concerned with in this testimony is the kind that is practiced in the public utility sectors of the economy, and in considerable measure in civil aviation, and has as its central purpose the direct prescription of industrial structure and performance, by such devices as restricting entry into the market to the number that some government commission determines is desirable and imposing on the certificated firms an obligation to serve all customers under reasonable conditions, directly fixing price, and prescribing the quality and conditions of service.

lation tends inherently to place a heavy emphasis on protecting the companies it is also supposed to be controlling. I do not mean here to repeat the vulgar popular notion that regulators are typically "in the pockets of the utility companies," and somehow untrue to the public interest that has been entrusted to them, though there are undoubtedly many examples of this. The tendency is one that will inevitably affect also honorable and dedicated public servants.

The reason is this: Under competition, in principle, no government official and no single company is responsible for the continuity of supply; no company has an obligation to serve. The consumer's protection comes from the impersonal functioning of the competitive market itself, from the rivalry among companies, from the fact or threat of competitive entry. Regulation, instead, relies on chosen instruments. A specific company is given a franchise; and that company and the regulating agency, instead of the market itself, bear the direct responsibility for serving and protecting the public. That responsibility weighs heavily on the regulator. I feel some direct, personal responsibility for seeing to it that the lights will still go on when people in New York flick their switches in 1985. Since it takes six to twelve years to install new base-load generating capacity. I have to be concerned about the ability of the franchised electric companies in my State to begin taking the steps today that will assure that result a decade from now. And that means, to complete the explanation, that I have to be solicitous of the financial health of those chosen instruments. So every responsible airline regulator, similarly, will emphasize his heavy responsibility for the continued provision of ample, safe, and economical air service in every part of the country.

And that responsibility, in turn, inevitably breeds a distrust of competition. Price competition, particularly in times of excess capacity, is a threat to the financial health of the chosen instrument company. Competitive innovations, introduced without restraint, may suddenly render obsolete the utility company's investment in as yet in completely depreciated equipment, leaving the residual of depreciation somehow to be recovered from its other customers, if it is to retain the financial health and ability to attract the capital necessary to provide continued service. Competitors have an inherent tendency, in the words of regulators and regulatees, to skim the cream off the market—which is only to say, very roughly, to compete for business where prices are far above costs, and to leave to the chosen instruments the markets where costs are far above price. How, the regulated company and regulator will protest, are they supposed to provide continued service in bad weather as well as good, in the winter as well as in the summer, over lightly-traveled as well as heavily-traveled routes, if competitors are to be free to come in and skim off the profits from the latter that have been financing service on the former? To the regulator, then, competition is disruptive and threatening, it interferes with orderly planning, it upsets stable markets; it is something to be restricted, confined, prohibited.

You will not need my help in seeing manifestations of this tendency in the airline industry.

This does not mean that competition has no useful role to play in regulated industries. On the contrary. Regulated monopoly is a very imperfect institution. The authority of the regulatory commission is essentially negative; at best, it serves only as a check on the exercise of private monopoly power; prevents excessive profits and excessive discrimination. It is extremely difficult for it to take major initiatives. A regulator cannot risk his own capital, and the 14th amendment puts severe limits on his ability to force the companies under his supervision to risk theirs. He cannot force a company to be progressive, to innovate, indeed, even to be efficient. He cannot do what a good management can do, and there is very little he can do about what poor management does. In short, he cannot supply the dynamic stimulus that in other industries is supplied by competition.

There is, therefore, a very respectable body of opinion that regulation really has very little effect. This view merges with the other, which I have already characterized, that regulators tend, almost inevitably, to associate their conception of the public interest with that of the companies they are supposed to be regulating, typically protecting them against competition and supplying no alternative effective stimulus. Paradoxically, according to this view, regulation has the greatest effect in areas, like transportation, where competition could otherwise prevail, and there, because of its tendencies to protectionism and cartelization, it tends to do a great deal of harm; and elsewhere, in the presence of monopoly, its effects are not discernible.

For these reasons, where it can be permitted without intolerable loss of efficiency competition can play a very useful supplementary role even in the most tightly regulated industries. In my judgment, for example, while the basic interconnected, national communications network is probably something like a natural monopoly, competition can and should play an important role in the manufacturing industry that supplies equipment for attachment to that network at the subscriber's end. Similarly, I believe that such competition as we have permitted in the passenger airline business has, on balance, improved its performance.

Still, to return to my first major point: because of the inherent conflicts and contradictions between competition on the one hand and regulation on the other, and because of the inherent tendencies of regulation toward conservatism, protectionism, and cartelization, society must periodically reexamine the premises on the basis of which it decided to impose on the public utility status of an industry, and consider whether a return to essentially unregulated competition might not be preferable, as this Committee is doing today. This is especially important in those industries, like transportation, where a competitive structure may well be feasible—that is, consistent with the individual suppliers achieving most or all of the available economies of scale. Transportation is not a natural monopoly. It is precisely in such situation that it becomes essential for us periodically to ask whether regulations may not be doing more harm than good. In my own judgment, transportation is the leading example of an area in which a substantial dose of deregulation, and perhaps something close to complete deregulation, is long overdue.

In the rest of these comments, I will suggest to you why I think this kind of reevaluation is particularly necessary in an industry like airline transportation.

Before doing so, I should like to emphasize that competition in the real world is also a very imperfect institution. Consumers are rarely adequately informed about the choices available to them, and as a result the competitive advantage often goes to the more effective salesman, or the less scrupulous advertiser, rather than the most efficient producer or the seller who gives the best value for the dollar. The greater the number of independent suppliers, the more likely mistakes are to be made, and capital committed to ventures that should never have been undertaken. Competition is often wasteful, and produces instability and uncertainty. But most of us regard the competitive market in much the same way as we regard democracy—it is a manifestly inefficient system that is better than any available alternative. To the extent competition is imperfect, our preferred remedy is to try to diminish its imperfections, rather than to supplant it with monopoly or socialized enterprise.

But public utility-type regulation in industries that are potentially and structurally competitive tends to produce the worst economic results of all—worse than regulated, franchised single-form monopoly, on the one hand, and worse than unregulated competition, with all its possible wastes and imperfections, on the other. There are so far two major reasons, and both spring from the fact that in industries of this kind, of which transportation is the leading example, regu-

lation specifically involves preventing, controlling and limiting competition—restricting competitive entry, and prohibiting rivalry in price and service—in brief, to use the proper term, it involves cartelization.

In principle, a cartel need be no less efficient than a pure monopoly. Single-firm monopoly has both the incentive and the opportunity to produce at minimum cost, to take fullest possible advantage of economies of scale, to adopt the most efficient technology, to limit capacity to the amount required to supply the market at minimum cost, to concentrate production in the lowest-cost plants, and to operate them at the most efficient rates. In theory a cartel could do all these things, too, producing the cartel-determined output at minimum cost, pooling, the industry's profits, maximized in this fashion, and distributing them according to some formula among the cartel partners.

But no cartel in history, regulated or unregulated, has to my knowledge ever done these things. The typical practice, instead, is to maintain price by imposing output quotas on the several members, efficient and inefficient alike. Indeed, where cartels have been in a position to make distinctions, they have regulated production more often by cutting back the output of the lowest-cost producers than the other way around, in order to leave room in the market for the higher-cost firms, whom competition would otherwise have driven out of business. The result has been gross inefficiency in production. We have had the abundant examples of this phenomenon among regulated cartels. Parity price supports in agriculture were accompanied by the imposition of acreage limitations across the board. In petroleum prorationing, production allowables were cut back, at their lowest point, to eight days a month for the typically highest-volume and lowest-cost wells, while exempted from all such restraints were the highest-cost, low-volume marginal or stripper wells, and deeper wells were typically granted larger production quotas than shallow wells, precisely because they were higher-cost! And in transportation, the Interstate Commerce Commission has placed limitations on the ability of railroads, by cutting rates, to reach out for traffic that they were in a position to serve at lower incremental costs than competing trucks or barges.

Moreover, cartels have been typically incapable of imposing full controls on investment and entry. By holding prices at non-competitive levels, instead, they have tended to encourage new competitive entry, particularly, in areas outside their control; and where they have succeeded in restricting entry, they have typically been incompletely successful in restricting the making of additional investments by firms already in the market—for example, the drilling of grossly excessive numbers of developmental wells in the oil industry, in quest of additional production quotas. Maintaining prices in the face of these artificially stimulated increases in production capacity has in turn necessitated further cut-backs in output quotas, forcing producers in turn to operate at even more grossly suboptimal levels, with correspondingly higher costs, and further preventing the distribution of the business to the lowest-cost suppliers. In these important ways, cartels foster inefficiencies far more gross than either single-firm monopoly or unregulated competition.

The resulting inefficiencies are in no sense purely theoretical. The wastes in transportation, for example, have been estimated as running to billions of dollars annually; and the wastes of excessive developmental oil well drilling in the late 1950's and early 1960's in this country were estimated by knowledgeable industry sources as running on the order of $\frac{1}{2}$ billion a year.

Second, and for exactly the same reason, cartels promote waste in another way that is particularly pertinent to the airline industry, by encouraging excessive non-price competition or service rivalry.

Perhaps the simplest way of explaining this is to set forth the economics that underlie both of these two tendencies toward inefficiency. I will do so in the form of a series of propositions, but then I will give you enough illustrations to demonstrate that I am talking about the real world. If regulation limits competition, it must be because some competition would otherwise be feasible: the ability and will to compete are therefore present. And if the regulation is effective, it will hold price above the costs of at least some producers or potential producers. I have already described how this sets up persistent temptations for firms already inside the cartel to expand their capacity and output, and for firms outside the market, and possibly outside the boundaries of the cartel, to enter, increasing the aggregate capacity hanging over the market and creating the necessity for

progressive cutbacks of output quotas if the price is to be sustained. These temptations cease only when output is so curtailed, and unit costs of production so increased, by the production cutbacks that entry and investment in new capacity are no longer attractive.

For exactly the same reasons, controls over price competition are subject to evasion because of the incentive they provide for accentuated quality and service rivalry, limited only by the ingenuity of businessmen in seeking new methods of enticing customers to them at the attractive, cartel-sustained price levels. Denied the opportunity to compete by reducing price, they are induced instead to compete for business in other ways that increase costs.

The point is that if competition is sufficiently strong potentially to drive price down to cost—and that is the reason for the regulatory restraints being imposed on competition in the first place—it will also ordinarily be sufficiently strong to induce suppliers, confronting a price above costs, to seek other, non-price methods of producing additional sales.

Please observe carefully the general principle; it is an important one: If regulation or cartelization prevent price from falling to costs, then, to the extent that competition continues to prevail, it will tend to raise cost to the level of price.

This tendency toward accentuated non-price competition is of course not confined to the regulated or cartelized industries. On the contrary, and for similar reasons, it tends to take place also in non-regulated industries that are sufficiently concentrated to avoid price competition—witness, for example, the practice of frequent and often functionally meaningless but nevertheless cost-inflating model changes in automobiles and appliances, and the heavy expenditures on advertising and other forms of product differentiation across a wide spectrum of oligopolistic industries.

But there are striking examples in the regulated sector. The Interstate Commerce Commission is not permitted, under the Motor Carriers Act, to place limitations on the amount of equipment and facilities or the schedules put into effect by certificated truckers; but it does restrict the entry of common carriers, and it does control prices. The consequence is a tendency, well-documented in the literature, for regulated trucking companies to compete by offering greater frequency of service, at the cost of lower average utilization of capacity.

Similarly, the maintenance of non-competitive brokerage commission rates by the New York Stock Exchange has encouraged brokers to engage in cost-inflating methods of service competition—the payment of large commissions to salesmen, and the offering of costly customer services in the form of free advice and research, in addition to the basic service, which is the consummation of transactions in securities.

In the airline industry, the requisite cartelization is achieved by the CAB restrictions on competitive entry, the resultant fewness of competing firms along particular routes, and the rather consistent discouragement of competitive rate reductions and special, promotional rates by the Civil Aeronautics Board, domestically, and by the International Air Transport Association. As a result, as anyone can observe, the airline companies compete very strenuously, instead, in adopting the most modern and attractive equipment, in the frequency with which they schedule flights, in advertising, and in providing comfort, attractive hostesses, in-flight entertainment, food and drink.

In turn—reflecting an almost inevitable tendency for regulation to become ever more thorough and pervasive in structurally competitive situations, because of the necessity for controlling whatever new forms of rivalry ingenious competitors and potential competitors devise—the CAB and the IATA have been forced to try to control this service rivalry as well. Price regulation alone is obviously meaningless, if quality of service goes unregulated. In the more monopolistic, traditional public utility industries, where regulation has had the principal purpose of holding prices and profits down, commissions have found it essential to regulate quality of service as well as price: the consumer can be just as effectively exploited by deteriorations in the former as by increases in the latter. So, in these more structurally competitive markets, where regulation has been introduced principally to prevent competition from driving price down, commissions have had to recognize that the service competition that pushes costs up can be almost as “destructive” as unrestricted price rivalry—witness, for example, the disastrous impact of competitive scheduling of flights on airline load factors, costs and profits.

And so we have had the unedifying experience of the CAB and IATA imposing restrictions on the provision of free drinks, the size and sumptuousness of meals, the amount of space between seats, authorizing concerted reductions in the scheduling of flights, and requiring a uniform supplementary charge for in-flight motion pictures.

One particularly troublesome way in which the government-imposed restrictions on price competition have encouraged cost-inflation in this industry has been the general refusal of the CAB to permit carriers with older, inferior equipment to set substantially lower rates in order to preserve their market shares in the face of the introduction of newer equipment. Since, when the prices are equal, the customer will obviously prefer the faster and more commodious jet to the slower piston aircraft, the refusal of the Board to permit a substantially lower fare for the latter created an irresistible temptation on the part of carriers to scrap the older equipment and introduce the newer as rapidly as possible, as Professor Richard Caves has pointed out. And this has indeed been a conscious policy of the Board, in keeping with its statutory mandate to promote the utilization of airline transportation.

This last example clearly invites the obvious question: what is wrong with service rivalry of this kind? Isn't it desirable to encourage airlines to shift rapidly to newer, faster and more attractive equipment? Doesn't more frequent scheduling mean better service, because it means a traveler has a correspondingly greater certainty of being able to get a flight at any time that he wants it? What is wrong with having a financially healthy security brokerage business, enabled by the restrictions on price competition to provide investors with the benefits of research and advice, at no extra charge, and providing brokerage service in small and remote localities where it might otherwise be unprofitable? Effective competition surely does require constant efforts at product and service quality improvement.

The only answer an economist can give is that the proper balance between service and price rivalry can only be determined, in a market economy, by subjecting the alternatives to a market test. The proper prescription is to give consumers the opportunity to choose between the two alternatives, the faster jet aircraft at a price reflecting the higher cost of its introduction, and the slower but still serviceable piston aircraft, at whatever rates down to operating costs are necessary to keep them utilized as well. This does not mean that old equipment should not at some point be scrapped. But so long as customers will patronize it at rates that exceed the variable costs of operating it, it continues to have economic value as well as physical serviceability; and any policy that prevents dropping that price down toward variable costs, and thereby provides customers no incentive to keep using the old, promotes premature and wasteful scrapping, and correspondingly wastefully rapid introduction of the new.

The only way of testing whether the increment in service quality consequent on more intensive scheduling is worth the higher cost it entails is to offer shippers or travelers the choice between lower rates and less frequent operations, on the one hand, and the high rates required to cover the costs of more frequent scheduling, on the other. The same is true of flights that on the one hand provide minimum leg room, and no food, drink, or entertainment, and sumptuous flights, on the other, and as many quality combinations as feasible between these two extremes, all at prices reflecting the respective costs of providing them.

Similarly for the security brokers: only if investors are offered the choice between the barebones service of consummating security purchases and sales, at a price corresponding to the cost of doing just that, on the one hand, and, on the other, the execution of orders plus salesmanship, plus advice, plus research will the market provide the economically optimum quantity of both. So long as the customer pays the same price for both of these packages, there will be an inherent tendency to wasteful and cost-inflating service rivalry. And that, it clearly appears, is what has happened in the airline industry.

The objection is not necessarily that airlines have been forced by their competition to incur greater costs for denser schedules, more advertising, meals, and in-flight entertainment than they would if they were able to get together and restrict such expenditures. The objection is, rather, that these cost-inflating service improvements have not been subjected to the test of having to compete with lower-cost lower-price alternatives. The defect, in short, has not been the service competition, as such, but the inadequate play of price competition along with it. In point of historical fact, the airline industry—as well as trucking, and the security brokerage business—offers numerous evidences that price competi-

tion will, if given a chance, hold service inflation in check. Witness the popularity of the more Spartan non-scheduled passenger service, the desertion of regular security brokers by large investors, and the wholesale desertion by shippers from common carrier to private trucking wherever they had the opportunity to do so.

In these circumstances, the attempts of the regulators to limit service rivalry are entirely logical. But that still has the effect of limiting the range of customer choices. And it inescapably raises the question of whether it would not be preferable simply to abandon economic regulation plus cartelization in favor of the freer play of price competition.

Senator KENNEDY. Our final witness is Dr. George James, senior vice president of economics and finance, Air Transport Association. He has spent much time analyzing economic trends and problems of the association, problems on behavior of the member airlines, and directing the operations of the Economic Finance Council. Dr. James is a member of the Conference of Business and American Economic Association, university guest lecturer and currently serves on the Doctorial Dissertation Association of American University.

We are glad to have you.

STATEMENT OF DR. GEORGE W. JAMES, SENIOR VICE PRESIDENT OF ECONOMICS AND FINANCE, AIR TRANSPORT ASSOCIATION OF AMERICA, ACCOMPANIED BY JAMES LANDRY AND GABRIEL PHILLIPS

Dr. JAMES. Thank you, Mr. Chairman.

I am accompanied by Mr. James Landry and Mr. Gabriel Phillips.

I have submitted a lengthy statement which I will not read, but I do have a summary which I will read but I request the more lengthy testimony be included in the record.

Senator KENNEDY. It will be included in the record.

Dr. JAMES. I find it enlightening to hear the testimony we have just heard from Professor Kahn. I have many smart friends who have been educated under Professor Kahn.

I must say, however, that after listening to what I heard this morning from all of the other witnesses that I have never been exposed to such incorrect economics in the airline industry except 9 years ago when I first came into the business myself. I think it is terribly important to have the exposure to the industry and understanding of it before you can really understand the practical implications of some of the proposals that have been made and to have a more full understanding of why so many of our witnesses are stumbling on questions that you are asking on what the effects of deregulation would be.

Well, as you stated on December 16, Senator Kennedy, the basic objective of airline regulation is adequate service at reasonable prices. We believe airline regulation has met that test. Nevertheless, we believe that consideration by this subcommittee and others of the issue of regulatory reform presents opportunities not only for thorough review of the existing structure and procedures, but more important, for seeking improvements in regulation. These improvements can lead to an even more effective and responsive public air transportation system.

The more extensive statement we have submitted to this subcommittee, under separate cover, deals with the concept of regulated competition in air transportation, with the objectives we understand are sought through regulatory reform investigations, with the achievements of regulated competition in the air transportation industry since 1938, and with the likely adverse impacts of many of the concepts of regulatory reform that are being proposed. Our statement also makes recommendations for some improvements in present air transport regulation.

I would now like to summarize the principal points made in our statement.

ADVANTAGES OF REGULATED COMPETITION

The system of air transportation, since its inception as an effective force in the American economy in 1938, has been founded on the principle of regulated competition. This has been necessary because of the special position of public transportation in the economy. In the spectrum of economic activity, from a natural monopoly to perfect competition, transportation falls in between.

It is unlike specific public utilities in which embedded costs are immense and therefore economies of scale are apparent. But because of the need and value of providing a public service to a vast interlinking network of cities and communities, air transportation cannot be placed in the so-called perfect or workable competitive environment either. Further, it has characteristics that under deregulation would quickly lead to a high degree of concentration. These characteristics include the complexity of aircraft operations, the increasing expense of individual aircraft, the need for extensive maintenance facilities, and the fact that an inordinately high percentage of the passenger markets are between points of low traffic density.

The present national air transportation system is characterized by stability, speed, reliability, and above all a vast network of the interlocking air routes involving 58,000 city-pairs. Its value to the Nation and to the public is derived from all of these essential features which would be seriously compromised, if not lost, through deregulation.

We believe it is essential that in the deliberations today, and in those which will follow, special care should be taken to ensure that it is the real world of air transportation which is the subject of scrutiny. Hypothetical models alone—based as they are, not on the actual demonstrated needs of the traveling and shipping public, but rather on theories applicable only in an insulated theoretical environment—may be helpful as a guide to thinking. But their application beyond the classroom or the textbook must be carefully considered in the light of existing, real circumstances.

Senator KENNEDY. How do you say that; what is the basis of that statement?

Dr. JAMES. I do not believe anybody was recognizing that we have 58,000 city-pairs, a stable environment in which that system is now operating, that we have met the test of keeping prices down, that we have a system built in through the Civil Aeronautics Board now in which the consumer interests are being represented and the prices that we might seek are being penalized by the fact that we may not be meeting certain of those standards, and many other points that I

will bring out in my testimony in answer to your question in a moment.

Senator KENNEDY. Why would not the Department of Transportation understand that?

POTENTIAL ABANDONMENT OF SMALL TOWN SERVICE (CROSS-SUBSIDY)

Dr. JAMES. The Department of Transportation, through the submissions they made and the Domestic Passenger Fare Investigation, was not taking as what I would consider a practical position regarding load factors, load factor standards, and the realities of service to this 58,000 network that we now serve. The implications contained in many of the submissions they made would have the load factors and load factor standards beginning abnormally high, and the only way to accomplish this would be to cut out service to many of the communities now serviced, thousands of them, as a matter of fact.

Senator KENNEDY. Can you submit a list of which ones that would be?

Dr. JAMES. Of the communities?

Senator KENNEDY. Yes.

Dr. JAMES. We can attempt to do that, Senator. That is a computerized answer that we would have to develop, and would involve millions of calculations. It is a difficult thing to obtain, and we would have to obtain it.

Senator KENNEDY. How can you be sure that you know and the Department of Transportation does not know?

Dr. JAMES. I know the size of the problem and that is what we are attempting to define.

Senator KENNEDY. I have asked you for specific testimony since you have discredited the witnesses, saying they were speaking through their hat. That is a gracious way of putting it. Then, I asked you the basis of it and you say they do not understand this particular problem. I ask you the basis for your information and you say you have not got it. You supply it and I will ask the Department of Transportation to do the same thing. Let the record speak for itself.

Dr. JAMES. Let me put it this way, Senator. What we have is aggregate information, and what you are asking for is detailed information. The aggregate information is that if we were to attempt to get to a 65-percent load factor today we would have to cut 25 percent off of these 58,000 city-pairs. I understand your question to be which of the 58,000 would be cut.

Senator KENNEDY. That is right.

Dr. JAMES. We have nothing that far. We have gone as far as to say one-fourth of them would be cut. I do not believe the Department of Transportation has thought of it in those terms, sir.

Senator KENNEDY. Well, I will ask them the same question, to submit information, as I am asking you, so if you can supply information on that and be as specific as possible I will ask them the same question.

[In a letter dated February 7, 1975, the chairman of the subcommittee made more explicit his request of Dr. James for a list of routes that would be eliminated under the conditions discussed above. On April 3, 1975, the Air Transport Association submitted its reply which totaled more than 200 pages. The chairman then requested independent eval-

uations of this ATA study from five leading economists and several Government agencies. The ATA study and the evaluations, together with relevant correspondence, are printed at the end of Dr. James' prepared statement following his testimony of this day, p. 139 ff., below.]

Senator KENNEDY. Let us continue.

RELATIVE DECREASE IN AIR FARES SINCE 1938

Dr. JAMES. The objectives sought by the theorists or the critics of the present system have been accomplished in a regulated competitive environment. Those who have found fault with the regulatory environment in which air transportation now operates seek to achieve a laudatory goal: air transportation service at minimum and cost-based prices, providing a maximum efficient quality of service. We believe we have accomplished that goal.

Today average scheduled airline passenger fares, in 1938 dollars, are 64 percent less than 37 years ago, when Congress passed the Civil Aeronautics Act. Moreover, if one wishes to switch to current dollar comparisons, from 1948 to 1974 the air fare between New York and San Francisco rose 21 percent. At the same time the price of a pound of roundsteak increased 100 percent, a pair of men's shoes 120 percent, a Chevrolet automobile 220 percent, and, though perhaps not commonly purchased, a year's tuition at Harvard over 640 percent.

Air freight rates have similarly experienced a decline relative to costs of all U.S. goods and services in the period 1946-1974.

Senator KENNEDY. With all due respect, what has that possibly got to do with it? Television has gone down, the cost of radio has gone down, wristwatches have gone down. So what sense does that particular comment make—how does that prove your thesis? I can give as many examples as you have given that have gone the other way. I am not an expert in this, but—

Dr. JAMES. The only point I am making, Senator, for every one you can give I can give one above the average. We are standing with a small group of services and products which have actually declined in this time period. We are 64 percent below the average, so obviously there are larger numbers that have gone up than have gone down relative to our performance.

Senator KENNEDY. Maybe that is convincing to some people, but what we do not know without competition is how much further it would have gone down. I would think that would have been the important question. If this is satisfactory to you as an explanation we will be glad to receive it.

Dr. JAMES. We also can compare ourselves with consumer price index and the wholesale price index, and we will have outperformed those.

REGULATED AND UNREGULATED FARES COMPARED

Senator KENNEDY. I do not suppose you could mention that the PSA has gone down further than you have, or Texas, so therefore they demonstrate—

Dr. JAMES. Senator, I think PSA would be delighted to say that, but they cannot. From 1967-1973 their prices went up 23 percent. Ours went up 17 percent. Since 1973, PSA has increased their prices 25 percent and is applying for 10.5 percent more. Since 1973, our gen-

eral fares are up 15 percent. Our price record against PSA is very competitive and we beat them.

Senator KENNEDY. Which makes the point that competition does not make much——

Dr. JAMES. They are probably within a 1/2-cent yield away from our average, and we have three or four fares that we offer today that are less than what PSA offers on a yield basis.

Senator KENNEDY. Well, the fares, as I understand, are close to half the price.

Dr. JAMES. They are not, sir. Their yields are close to 6 cents a mile and ours are running close to 7 cents a mile, including the charges that have just been made.

Senator KENNEDY. Well, give me, just to clarify for a layman, what the fare is from San Francisco to Los Angeles for CAB regulated and then the PSA.

Dr. JAMES. Well, I see the frame of reference in which you are speaking.

Senator KENNEDY. Can you answer that question for me?

Dr. JAMES. I have the airline guide here and I can probably pull out that fare for you, if you wish.

Senator KENNEDY. OK.

Dr. JAMES. The yields I am quoting to you are the average of all of our fares against PSA. If you would like I would also like to elaborate on that in a moment as to the differences of the kind of service that PSA is offering and the different cost against our own carriers. I can do that if you wish while we are attempting to find——

Senator KENNEDY. The point that I was making is, I did not understand the relevancy of the increase in Harvard's tuition, and then we got diverted on this other situation, so whatever you like, we will just put those in the record and you can continue.

Dr. JAMES. Senator, there is a spectrum of fares on that route between Los Angeles and San Francisco. PSA, for example, has a fare \$20.25. TWA has a fare for \$19.50. Air West has a fare for \$18.37, Continental \$17.

Senator KENNEDY. Are those the intrastate passengers?

Dr. JAMES. Between Los Angeles and San Francisco, yes.

Senator KENNEDY. Those are traveling intrastate, right?

Dr. JAMES. Yes.

Senator KENNEDY. Say someone took a plane from Boston, San Francisco, Los Angeles, what would be the cost of the San Francisco-Los Angeles rates?

Dr. JAMES. Those would be larger.

Senator KENNEDY. Give me those.

Dr. JAMES. I will submit that for the record later. I do not have it with me at this time.

Senator KENNEDY. Well, it must be in the airline guide. You are the experts on it.

You can continue in your testimony.

Dr. JAMES. All right, sir.

Senator KENNEDY. Counsel informs me that it is \$38.89.

Dr. JAMES. The airline offers the public a wide range of available fares, and extensive use has been made of these. For the year ending September 1974, for example, use of lower than full fares accounted

for almost one-third of all coach revenue passenger miles flown. Beginning this month another broad based discount fare has been introduced which will provide an attractive bridge between charter and regular fares.

The spectrum of fares that we offer has been used extensively by low income groups in the United States. Last year one of every seven adults making less than \$7,000 annually flew on a scheduled airline. Overall, 18 percent of all adults taking one or more trips by air made less than \$7,000. This pricing performance, at an adequate level of service, either in the long run or in the short run, could not have been matched by pricing in a deregulated environment. In fact, in the long run, as evidenced by the pricing performance of the U.S. economy as a whole, deregulation of the air transport industry would have placed prices and fares at a much higher level than now exists.

Senator KENNEDY. Why is that?

Dr. JAMES. Basing that on the pricing performance of the U.S. economy as a whole, which was much higher in constant dollars in 1938 than our own performance, which was 64 percent less.

THE DOMESTIC PASSENGER FARE INVESTIGATION

More recently, we believe that the Civil Aeronautics Board has taken precedent-setting steps, through the results of its Domestic Passenger Fare Investigation, to assure that the airline industry operates at standards of efficiency responsive to consumer interests. The initiation of this investigation came from Members of Congress in late 1969. The investigation began in January 1970, and that portion of it covering fare level rate of return procedures produced its first results in May 1973.

The resulting CAB standards of efficiency assure that no automatic fare increase is charged to consumers for so-called industry cost mistakes of purchasing excess equipment, of misestimating a market and hauling too few people, or for giving away business through discounting. The CAB standards of efficiency adjust for all of these, and no fare change is made until these adjustments have been made. Each fare increase granted to the industry since 1973, including the 4 percent increase granted last November, has been based on meeting these standards.

These CAB fare level procedures, resulting from open public hearings, are not arbitrary, were not developed from clandestine meetings, and have a clear and comprehensive public interest platform built in. Yet the opposite and misleading impression is often given by critics as an emotional appeal to consumers. As we have shown, in fact, it is the consumer who is the primary beneficiary of these procedures.

Let us turn our attention to the question of load factors, a concept grossly misunderstood and misused. Continually our industry is told two things: (1) we are not providing adequate levels of service, and (2) our load factors should be higher. For our industry these objectives are contradictory.

I believe I can make my point by referring to the statement that Senator Kennedy made on the Senate floor on December 16, where he referred to the difficulty a student in Boston might experience in returning to his home in Detroit because of a lack of available seats on that route. Keeping in mind that the Civil Aeronautics Board's

domestic passenger fare investigation established the load factor standard at 55 percent in 1974, the average load factor in the Boston-Detroit market was 59 percent. Senator Kennedy has cited an example of possible inadequate service at a load factor of 59 percent. To average 59 percent, the Boston-Detroit market shows a monthly load factor range of 52-67 percent thus further demonstrating the seasonality of our markets.

Senator KENNEDY. You missed the point completely, because I was not really talking about the load factor there, I was talking about the competition that existed in that particular route and pointing out that there was only one carrier traveling that route. There was another one that offered to provide better service and, because the Board had refused to have a hearing, was unable to do so. That is the point that was made. I think it is still a valid one. If you want to draw some kind of reference to the load factor as being the purpose of that comment, then I am glad to clarify that for you at the present time, but that certainly was not the point being made. There is another carrier who wanted to get in, offered more frequent and better service, was never granted a hearing and that opportunity is not available to that young person. If you want to argue with that point I will be glad to hear you.

Dr. JAMES. You were citing in your statement, Senator, that the students, for example, between Boston and Detroit would be unable to get on flights between certain periods of time because of lack of service and the refusal of the Board to add additional capacity.

My point is that here is a situation where apparently there was insufficient capacity and yet there was a 59 percent load factor.

Senator KENNEDY. How many carriers are there in that group?

Dr. JAMES. I am not aware.

Senator KENNEDY. Oh, now, you know how many carriers there are. Ask your associates. There is one carrier, one non-stop carrier.

Dr. JAMES. There are lots of ways of getting between Boston and Detroit, if you are talking nonstop, then there is one carrier.

Senator KENNEDY. That is right. OK.

SMALL TOWN SERVICE (CROSS-SUBSIDY)

Dr. JAMES. What is commonly overlooked by observers of the scheduled air transport system is that 30 percent of our domestic traffic is produced by only 70 larger city-pair markets; another 40 percent is derived from an additional 840 markets; and the final 30 percent is produced in some 57,000 smaller markets. Yet, these smaller markets are an integral part of the system and their loss would seriously damage the adequacy of public air transport service, as well as invoking a severe cost to the national economy.

For example, out of a passenger load of 85 on a typical flight from Denver to Chicago, over three-fourths do not originate in Denver. They are coming from Pueblo, Colo.; Cheyenne, Wyo.; Great Falls, Mont.; Sacramento, Fresno, and San Jose, Calif.; and other cities in the West. If this feeder system were tampered with, the primary market would also become less profitable. As a result, it would receive less service, and the remaining smaller feeder markets would also receive less indirect service.

Senator KENNEDY. Well, how can you say that? I would be interested in your printouts on that particular fact. I just know that with

regard to my part of the country, Air New England provides many more opportunities for the trunk carriers and the scheduled line carriers to move people than when the major scheduled carriers were traveling down into southern Massachusetts and to other parts of the State.

Dr. JAMES. My example would be that the analogy that Air New England, for example, is feeding into Boston. Boston is a major hub serving to Los Angeles or San Francisco. Flights out of Boston are fed by many of the feeders in the New England area. The profitability of those hub routes depends to a large extent on the feeder routes coming into Boston.

I cite an example later in the testimony concerning a flight coming from the West, Fresno on through Denver and Chicago on which I have specific figures which I believe may illustrate the point you are looking for.

Senator KENNEDY. What is the point here?

Dr. JAMES. If you tamper with this system that you will begin to close it in on the periphery, that is the feeder points would be the ones that would begin to shut down. As they were shut down it would also have an effect on the hub. Hub service would be less, and what you are doing, because it is a concentrated industry, is that you are going to end up with only a few markets served by fewer carriers and the air transport service will be seriously compromised.

Senator KENNEDY. Well, that has not been the experience in my State. You may be able to document it in other parts. I dare say that would not hold up in New England. I dare say it would not in California. There may be other parts of the country that it would.

I would be interested in what information you have to show that this has been the situation in any of the places where there has been a reduction of scheduled flights, because it certainly has not been the case in Boston or Massachusetts.

Dr. JAMES. Well, I do not know that we can demonstrate what the impact would be fully from our standpoint or the standpoint of those, for example, that testified this morning.

Senator KENNEDY. Well, then, how can you make your statements with such assurance?

Dr. JAMES. Let me make this point first, if I may.

The point I was leading up to is that we do not have the experience in this country of shutting down the air transport systems to fully understand what the impact would be in these outlying districts. We have to rely on the evidence we now have that shows the amount of feed that goes into a hub and the importance of that feed to the more profitable routes that continue beyond and assume, then, that if you were to deregulate the low density routes would be the ones in which service would first be dropped, and as it is dropped then the public transportation network begins to be compromised and there is a chain reaction all the way through to the main levels of the hubs in which service is dropped there.

Senator KENNEDY. I think the best opportunity would be to look to places that had certificated carriers which dropped feeder service into these hub areas. One of the clearest examples is my own area, where Northeast was able to drop certain of these routes, and after it was merged with Delta, virtually all of them were dropped.

I dare say the smaller lines have provided a much greater degree of service to the public, and I dare say, and I will be glad to look at the statistics, that there is more service feeding into the major scheduled airlines now than when the certificated carriers were flying the DC-8's at 1 o'clock in the morning in order to meet with CAB requirements. We have seen how Northeast used to fly down at the most inopportune time in the world, and would be down here 4 or 5 months later saying look, this is all the number of people traveling on it, and trying to get permission to drop it. We saw instance after instance in which they were permitted to drop service. Now we have been able to see the development of a variety of different carriers serving this area—from Boston all the way up the coast of Maine and New Hampshire and Vermont, and we find a much more efficient and effective service, and I dare say the numbers would show they are bringing many more people into the major market areas.

If you are going to make a statement categorically that deregulation would mean inferior service, this is a statement that I think ought to be supported with at least some kind of figures or documentation showing places where that has been the case in the past. If you have some we would welcome it.

Dr. JAMES. Senator, I do not believe the analogy you make necessarily holds, because the service that you now have in the New England area is still a scheduled certificated service. For example, the recent certificating of Air New England as a regional carrier.

Senator KENNEDY. Do you know when Air New England was certificated?

Dr. JAMES. Well, just within the last month.

Senator KENNEDY. We have been flying it for the last 2½ years. So we can use the figures before it was certificated if you want. I do not want to debate this point.

Dr. JAMES. Perhaps your service is well improved.

Senator KENNEDY. I have been very satisfied with it. If they can improve it, I am delighted.

We will continue. If you have any figures or statistics or studies on this particular point we would welcome them, because obviously the DOT has presented a statement. We will ask them for their data as well, and if you have some we would like a chance to examine it. You must have reviewed this, and we would like to take a look at it.

[In a letter dated February 7, 1975, the chairman of the subcommittee made more explicit his request of Dr. James for a list of routes that would be eliminated under the conditions discussed above. On April 3, 1975, the Air Transport Association submitted its reply which totaled more than 200 pages. The chairman then requested independent evaluations of this ATA study from five leading economists and several Government agencies. The ATA study and the evaluations, together with relevant correspondence, are printed at the end of Dr. James' prepared statement following his testimony of this day, p. 139 ff. below.]

Dr. JAMES. Fine.

THE INTERLINE NETWORK OF AIRLINES

Some claim that, if the present system were deregulated and present carriers elected to leave the smaller markets, commuter carriers or forms of ground transportation would be adequate substitutes. Data

developed by Dr. Gary Fromm, formerly of Data Resources, Inc., would indicate differently. The value of an hour's time to an air traveler is approximately \$10.50. Taking into account the slower times for accomplishing the same trip by rail, bus, auto or lower speed aircraft, the cost to individuals and therefore to the economy could approach billions of dollars.

The replacement of many of these markets by smaller carrier operations would be a hazardous one. For example, in 1972, of all U.S. cities receiving scheduled passenger commuter service, 74, or 17 percent were abandoned 1 year later and service was added to another 104. Thus, in that time period 178 cities experienced a change in scheduled commuter service—roughly one-third of all cities receiving such service.

The present air transport system represents a wholly integrated network of scheduling, connections, interlining, and routing among and between carriers serving cities of varying size and geographic proximity to each other. A glance at the Official Airline Guide (which contains the schedules for the entire air transport network) provides dramatic evidence of this point. For example, the OAG (North American edition) published on February 1, 1975, is 898 pages long. It depicts the schedules of every scheduled carrier in North America, to and from virtually every community served, with connections indicated. It is this network which would be jeopardized by drastically revising or dismantling the structure so carefully constructed over the last 37 years.

The airline industry believes that the regulatory environment within which we operate has served the public interest well. We believe the results support that conclusion.

However, in certain instances, airlines have opposed and continue to oppose the manner in which the regulatory process has been carried out. And we believe that certain areas of economic regulation of our industry do require increased attention.

For example, the problem of regulatory lag is endemic to the regulatory process throughout much of government. There are areas here where productive changes can be made. The proper requirement for full and complete industry reporting of economic, financial, and statistical data need not result in duplicate and redundant effort on the part of the industry or the regulator. We believe reasonable cost-benefit analysis can be usefully applied to certain of these requirements.

We also believe that the precedent-setting step of establishing performance and efficiency standards for the industry should be subject to regular scrutiny by the Board and amended when and as required in the public interest. These should be done, however, always keeping in mind the need for continuing understanding on the part of the public and the government of the real world economics of the air transport system.

We also believe that the undertaking by the Civil Aeronautics Board of a comprehensive review of route development policy is desirable. Careful consideration should be given to the view contained in an October 1974 report by the Board that: “* * * regulatory route and route-related policies should be directed to improving the efficiency and quality of the system, through careful expansion of route

authority when required by traffic, and through route rationalization."

We are also in favor of selected changes in the tariff procedures. We would advocate extending the filing deadline for tariffs from 30 to 45 days with Board decision required after 30 days. This process would provide 15 days advance public notice of tariff changes. A corollary of this would be the adoption of a simplified short-form tariff which would work to enhance public understanding of a given tariff change.

In conclusion, the kinds of changes we feel are worthy of consideration are those which would tend to improve upon the present system, and not destroy it or affect its present high level of performance. The regulated competitive environment of the air transport system has not only fulfilled all of the objectives of an unregulated environment and has been truly responsive to public service needs.

The record of the air transport industry shows: (1) that we are not high priced; (2) we are consumer-responsive; (3) we offer a high quality of service; (4) we are innovative and have introduced a high degree of technology; and (5) we maintain an extensive network of public service.

We believe that there is no way that a major overhaul of the regulatory structure of air transportation, let alone deregulation, could improve on this record.

Thank you, sir.

I am open to additional questions, if you wish.

FARE FLEXIBILITY

Senator KENNEDY. Mr. Beyer will ask some questions, but before we get to that, what was your reaction to some of the proposals made this morning by the DOT in terms of price flexibility, for example, that permit at least some—I think they talk about zone of flexibility.

Dr. JAMES. This is the zone of reasonableness?

Senator KENNEDY. In terms of rates.

Dr. JAMES. Yes, sir.

The carriers are divided. There will be carriers who might show some interest in that, many others who would not. I am not in a position to give a unified industry answer to it except to say that one does have to examine what the purpose would be. It is the purpose to——

Senator KENNEDY. Well, I suppose the purpose is to permit somebody who wants to fly, as I did last Thursday, from Washington to San Francisco, to go for \$100 instead of \$200.

Dr. JAMES. Yes, sir. We have introduced just this month the opportunity for you and others who so wish to use it to fly at discount rates at those distances, and in effect we would view that as part of the zoning.

Senator KENNEDY. With regard to that point, you are generally accepting that proposal that they mentioned there. As I understand from what you are saying now, you have no real problem with it.

Dr. JAMES. What I am saying at this point, Senator, is that in many ways the present practice is meeting the objective that you are seeking.

Senator KENNEDY. Well, if they do not—then, if it is meeting the objective and you are saying that has all ready been done, then I understand you are in general support of it. You say that has already been done, it is not necessary——

Dr. JAMES. I am in general support of the wide variety of fares which the industry offers the public, which are in varying combinations.

Senator KENNEDY. If you say they are all ready doing it what is your reluctance to support it? I do not understand it. You say they are already doing it, you are in support if they are already doing it. You cannot have it both ways.

Dr. JAMES. I guess what I am really saying, Senator, is that if we are already doing it one way and accomplishing the objective a second way, why do it the second way?

Senator KENNEDY. Well, then you are against it?

Dr. JAMES. I am not in a position to represent an industry view, sir.

Senator KENNEDY. What is your own personal view?

Dr. JAMES. That we are already meeting a zone of reasonableness by the variety of fares that we are offering the public.

Senator KENNEDY. This is not different from your industry view?

Dr. JAMES. It is not different from our industry practice. The industry view would be different from the industry practice, depending upon the spectrum of answers to the questionnaire that you have on this same subject.

Senator KENNEDY. That makes it very clear.

FREER ROUTE ENTRY

How about freer entry into the market area? You say the administration strongly supports liberalization of entry into the airline industry and the proposal provides substantial entry and exit liberalization.

Dr. JAMES. Yes, we feel very strongly that if you had complete freedom of entry in these markets that only the larger more profitable markets would survive and only a few carriers would survive, and the value we now have in the total 58,000 city-pair markets would be destroyed, and it would not be too long until we find that our ability to get more—to get service between more than 70 to 200 pairs out of this 58,000 would be a reality. We would not be able to get more service than that.

Senator KENNEDY. Well, how do you respond to the points that were given this morning that, if some carriers drop by the wayside because they are poorly administered, they do so because they are inefficient? There are others that can run an airline better. Why do they not have the ability to come in and offer a price and service to the public that—

Dr. JAMES. I simply do not accept the fact that we have as a group, a poorly managed airline. Between 1969 and 1974, we have reduced our employees 31½ percent. At the same time we increased our volume of traffic, passengers hauled by 20 percent, passenger-miles by 30 percent.

Senator KENNEDY. If they are doing such a good job what do they have to fear from anybody coming in?

Dr. JAMES. The thing you have to fear is the loss of some 57,000 city-pair services.

Senator KENNEDY. Why do you say that? You say they are all doing a complete job, are not overpriced, are consumer responsive and innova-

tive and give extensive public service, so what should they have to fear? It seems to me the people who have something to fear are the people who are sticking their neck out.

Dr. JAMES. Sir, I think it is the public, the Government that should have the fear, the fear that the public service to all of these city-pairs will be destroyed or effectively compromised. The surviving carriers in this should have nothing to fear, but there would be few of them serving very few markets.

Senator KENNEDY. At a lower price, I suppose?

Dr. JAMES. Not necessarily, because if you compare our price performance over the past 30 years, we are marketing better than the economy. That is, better in the sense that we are priced lower relatively to them.

Senator KENNEDY. We are back to the question of whether fares might not be even less if you had competition or free entry.

It reminds me of the patient who had a temperature of 101 and his temperature was 98 one day and went up to 101 the next and 102 the next, and the doctor said you are getting better because you are getting sicker more slowly.

How do you know if, with competition, you might not be doing better, even further below the national average?

Dr. JAMES. I think my answer would be this. Could anyone say that we could do better—I do not think we could—but let us assume that we did, on 70 markets, and with two or three carriers, at the cost of serving the rest of the network that now exists. If they think we would improve then they are overlooking the cost, the cost to the public in particular.

Senator KENNEDY. We will never know, though, if we follow your position, because you would not permit or at least not encourage new entry of other carriers into the market. The way that I understand your answer is that nothing would be more disastrous for the whole traveling public than if you opened it up to any kind of competition. If we follow your testimony, we will have no way of knowing, will we?

Dr. JAMES. I think in response to that question, it is well advised to keep in mind that those who advocate this, as they essentially did this morning, were also in extreme wonderment as to just whether or not you could go through this transition and not effect the city service that we now have. Many questions were raised on their part as well.

Senator KENNEDY. I raised most of them.

Dr. JAMES. You did, and I appreciate that.

CAB AUTHORITY TO IMMUNIZE INTERCARRIER AGREEMENTS FROM THE ANTITRUST LAWS

Senator KENNEDY. What about the antitrust immunity? How do you stand on that?

Dr. JAMES. I would like to refer, if I may, to our chief legal counsel, Mr. Landry.

Mr. LANDRY. Thank you, Mr. Chairman.

If I could just add one comment to what Dr. James has been saying about the consequences of free entry as to what would happen. As he has emphasized, you have 70 markets equalling the support from 57,000 city-pairs. That fact reminds you of what Willie Sutton said

when they asked him why he robbed banks. He said that is where the money is. The entrants would go to the 70 markets, that is where the money is.

Senator KENNEDY. I hope there will be one between Boston and Washington.

Mr. LANDRY. If I may get to the other question, the system under 414, I believe it would be a mistake and a serious mistake from the consumer point of view to do away with the antitrust immunity, to do away with section 414. There is a tremendously integrated network with some 24 carriers serving this host of markets in which a number of efficiencies and cost savings are brought about through intercarrier agreements. Those agreements would not be formulated if the carriers were fearful of the very drastic consequences, particularly now under the new law, of the antitrust violations.

I am not saying these agreements are worked out in smoke-filled back rooms or anything of that sort. They are worked out in the open, in front of the observers of the Civil Aeronautics Board, the Department of Justice, the Department of Transportation. I have had the privilege in the last week, for example, to play host to a very dramatic effort of carriers around the world to try to cope with the escalating price of fuel. Some 75 carriers have gathered together to see if they could formulate some joint actions that might bring the price of fuel down, to the benefit of the consumers. Those carriers held a giant meeting last week, observed from beginning to end by the Civil Aeronautics Board. DOT was present throughout, and the Department of Justice had the opportunity to be there. But in any event, any agreement that comes out of that will only go into effect if approved by the Civil Aeronautics Board. Under the holding in the local cartage case, the CAB, if it sees anticompetitive effects, it is not going to approve any such agreement unless it positively and affirmatively finds this the only way to meet a serious transportation need or to secure important public benefits. So, I think all in all this is very close scrutiny. And, the system is working.

Senator KENNEDY. Do they keep transcripts of those meetings?

Mr. LANDRY. Minutes are being given to the Civil Aeronautics Board and they are public. And, they allow interested persons to come in and address the meetings.

Senator KENNEDY. Would you support keeping transcripts, as we do here in the Senate?

Mr. LANDRY. In some cases they have transcripts.

Senator KENNEDY. Can you see any reason why they should not keep transcripts? You just talked about how open the meeting was. Do you have any reason why transcripts should not be kept?

Mr. LANDRY. In this case—if transcripts were made available to the oil companies. I imagine that the dialog would not be quite as free as it would be absent such a transcript. But full minutes are being submitted to the CAB today, as a matter of fact.

Senator KENNEDY. You really cannot have it both ways. I think up to this year the Congress was one of the biggest offenders. We have executive sessions from which the public was excluded, and conferences with the House of Representatives in most instances were closed. That has gone on for some time. It was generally felt that if we opened up these meetings, either the Members themselves would be fighting a

losing battle in front of the press and the various kinds of interested groups, or that there would be a distortion of the legislative process. But it has been demonstrated, and I think quite effectively, that this is not the case in the number of committees which have held the open executive sessions in considering extremely important matters of policy.

I am just wondering why we should not have these airline meetings open, or maintain transcripts; what reluctance you would have to——

Mr. LANDRY. Mr. Chairman, I think in this particular set of discussions that I am talking about, I think, it is unique in not having them open with a transcript.

Senator KENNEDY. Do you think they should be open with transcripts unless there is going to be a vote taken by participants to close it?

Mr. LANDRY. No; I believe that the discussions, for example, capacity discussions and so forth, have had consumer groups represented throughout the discussions. I believe they have been fully open to members of the general public and have been held in that kind of goldfish bowl without any adverse consequences.

Senator KENNEDY. Come on, do you favor keeping transcripts, or do you not?

Mr. LANDRY. There were transcripts, I believe, of those capacity discussions and any discussions of that nature. So I say about 90 percent of the time——

Senator KENNEDY. It is the other 10 percent that we want to get. The minimum charter discussions that we had last fall, I think the transcript of that meeting would have been fascinating.

Mr. LANDRY. I am not sure of the ground rules for those discussions as to whether there was a transcript. I do not know.

GENERAL FARE INCREASES IN PREVIOUS YEARS

Mr. BREYER. A couple of minor questions.

First, I would just like to clarify this, because we are making an effort to keep our statistics accurate, I have gone over your prepared testimony. I was a little bit disturbed because you stated that contrary to what Senator Kennedy said—contrary to the December 16 statement—last year the domestic airlines were granted fare increases totaling 10 percent. I went back and checked that again and I think we were accurate on that, were we not?

The CAB, on December 16, granted a 5 percent increase. It granted a 6 percent increase in April 1964 and there was a 4 percent increase in April 1974. Then, specifically referred to in the speech, the CAB phased out discount fares which amounted to a 5.4 percent increase. These total 19.4 percent. Senator Kennedy described the increases as “nearly 20 percent.”

So I would appreciate your going over your statement because we are making an effort to be accurate. I do not think what the Senator said is contrary to the facts.

Dr. JAMES. We think by putting the discount fare changes in you are mixing apples and oranges, which is something many others have done as well. If you talk about the 5 and the 6 and the 4, the 15 for the 3 general air fare increases, you are talking about the impact we

had on the normal traveler. If you are talking about the discount fares, they affected the family fare traveler and the youth traveler. To many that change was almost as much as 40 percent because it was going from 66 to 75 percent of full fare up to full fare over three stages.

Now, in turn, however, he now has available, beginning this month, 20 to 25 percent off. So the change to many perhaps is only 10 or 15 percent increase. The change to the average nondiscount traveler, the general fare increases then are 15 percent in that time period.

Mr. BREYER. The CAB gave us that number. I would appreciate it if you would check it out.

Dr. JAMES. The difference is whether or not you should have in the calculations the discount fare changes which are really yield changes.

SMALL TOWN SERVICE (CROSS-SUBSIDY)

Mr. BREYER. I just want to stress a point that I had some difficulty understanding. I am not certain what argument you are making when you talk about the complexity of the network. I think at some point what you are saying is that there are a lot of unprofitable routes that are being subsidized by other profitable routes. Now, if that is the case, what is interesting to me about that is the Department of Transportation and the Council of Economic Advisers and people who seriously studied the matter for a number of years argue that there is not any substantial cross-subsidy. If in fact you did have more competition you would still get those little towns served, maybe not every one, but certainly most of them, perhaps by commuter airlines. But you state the contrary is true.

What I would like to ask you to do is to substantiate that claim, come up with lists of costs or lists of those towns that would be cut off. Can you prepare this computer printout or whatever cost studies are necessary, because we have cost studies on one side and I think it would be helpful to have them on the other.

Dr. JAMES. I believe there are two questions there, one on cross-subsidy and our ability to produce this feeder information.

On the cross-subsidy, I believe that that is a concept that has been misused on many occasions, and I would cite this, that if you take the flight that we have from Fresno to Denver to Chicago, and we have 27 passengers that are coming from Fresno to Denver that continue on to Chicago. Now, they are on that major hub that is often looked upon as subsidizing the smaller feed route that they just came on. So they are in effect subsidizing themselves if you call it cross-subsidy.

Now, what about the passengers who are on that flight who did indeed originate in Denver and go to Chicago. Are they subsidizing those who were fed into Denver. Well, I believe you can look upon that as if they are not, because what is happening there is that they are getting a higher level of service than they would have gotten without the feeding routes coming into Denver.

Mr. BREYER. What I am asking is that you make a serious effort to prepare the documentation that would bear out the statement. In California they have a competitive system and feeder routes, as well. Nonetheless, you think if there were freer entry the feeder systems would be destroyed. I am asking for the subcommittee if you could submit documentation.

Dr. JAMES. All right, sir. We will make that effort. I might indicate that you will find there are other sources, and among them larger aircraft manufacturers who have studied the same problem, and it is very possible that they, too, could produce information along this line. We perhaps can furnish a list to you of those who may have such information available.

Mr. BREYER. I think it is relevant to the question. For example, you have often talked about the need for regulation to provide public service. This is perhaps a different question. You say "adequate public service." In California there is a choice between adequate public service supplied by a regulated line and unregulated lines. If you look at the PSA figures, a line that is not subject to CAB regulation you find that far more people fly on PSA in California than on scheduled service. When people seem to be given that choice they seem not to take the scheduled, CAB-regulated service.

Dr. JAMES. We think there is a lot that needs to be illuminated between interstate and intrastate operations, and we of course, and some of the carriers as well, will be participating in your February 14 hearing in Boston.

Mr. BREYER. This afternoon is not meant to fully expose the industry's position. We hope this morning's testimony will focus the discussion. Anybody in the industry who wishes to present documentation is free to present it in written form even if they do not testify orally.

Dr. JAMES. Fine.

Senator KENNEDY. I want to thank you very much for coming.

I think Mr. Breyer indicated we are looking forward to the testimony of the airlines themselves and working with you and we want to tell you how much we appreciate your presence here and response to the questions.

We will recess until next week.

The subcommittee stands adjourned.

[Whereupon, at 4:05 p.m., the subcommittee was adjourned.]

[The prepared statement of Dr. James follows:]

PREPARED STATEMENT OF DR. GEORGE W. JAMES, AIR TRANSPORT
ASSOCIATION OF AMERICA

My name is George W. James, I am Senior Vice President of Economics and Finance of the Air Transport Association of America, which represents virtually all of the U.S. scheduled airlines. I am accompanied by Mr. James Landry, ATA General Counsel, and Mr. Gabriel Phillips, ATA Vice President-International.

Because our industry and the public it serves are directly and comprehensively affected by the regulatory environment established by Congress, we welcome the attention being focused on this subject—in these hearings, and elsewhere on the part of the Congress, the executive branch and the public.

As you stated on December 16, Mr. Chairman, the basic objective of airline regulation is adequate service at reasonable prices. We believe airline regulation has met that test. Nevertheless, we believe that consideration by this panel and others of the issue of regulatory reform presents opportunities not only for thorough review of the existing structure and procedures, but—more important—for seeking improvements in regulation. These improvements can lead to an even more effective and responsive public air transportation system.

The regulatory environment within which airlines have operated since 1938 has resulted in "the most comprehensive air transportation network in the world." This is pointed up by the fact that, in 1974, the scheduled airlines, with 30,000 employees, operated a modern fleet of 2,400 aircraft on 13,000 flights daily, and carried 208 million passengers (representing about 75 percent of intercity

common carrier passenger miles), 3.3 million tons of freight, and 16 billion pieces of mail. Further, in 1974 this industry transported six million more passengers than in 1973, and used about one billion gallons less fuel in the process. These facts demonstrate clearly the size, importance, and public responsibility of the scheduled airlines within the \$60 billion U.S. travel industry.

Dominating the 1974 economic picture for the airlines, as for the nation, was the combined impact of the energy crisis, inflation, and recession. Contrary to your December 16 statement, Senator Kennedy, last year the domestic airlines were granted general fare increases totalling 10 percent. Another 5 percent had been granted in December 1973. These fare increases were exceeded by inflation in airline costs of more than 20 percent, including the more than doubling of per gallon fuel cost during the year. The fact is that additional revenues provided by the April, 1974 fuel-related domestic fare increase and the fuel-related portion of the 4 percent mid-November increase to which you have referred will total about \$400 million, as compared to the 1974 domestic fuel cost increase alone of about \$700 million—a shortfall of \$300 million. Yet, despite the massive challenges which have confronted our industry during the past year, our record of public service—providing quality transportation at reasonable fare levels to meet the needs of the traveling and shipping public—has remained strong.

Simply put, the experience of 37 years of regulated competition has resulted in an air transportation network bringing adequate, integrated, and reliable public transport service to 540 U.S. airports serving thousands of communities, at reasonable and cost-related prices—as a matter of fact, the best transportation system in the world.

This industry has come a long way since 1938, and the regulatory environment within which it has operated played a key role in this development. The CAB and the private, competing airline managements have worked within the framework of regulated competition established by Congress to furnish the American people this unparalleled system of transportation, a system, we believe, that would not have been possible except through a balance between regulation and competition in the industry.

REGULATED COMPETITION

The system of air transportation, since its inception as an effective force in the American economy in the late 1930's, has been founded on the principle of regulated competition. This has been necessary because of the special position of public transportation in the economy. In the spectrum of economic activity, from a natural monopoly to perfect competition, transportation falls in between.

Unlike certain specific public utilities in which embedded costs are immense and therefore economies of scale so apparent¹ that they may be characterized as natural monopolies, components of air transportation are conducive to competition. While the cost of equipment and facilities is high, and rising, airlines are by their nature mobile. More important, airlines are embedded in the essentially competitive structures of market economics, requiring efficient and adaptable management to compete effectively against unregulated business for capital in the marketplace.² Thus, competition has properly played a key role in the development of U.S. air transportation.

Still, air transportation cannot be placed in the perfect or workable competitive environment since, as historical experience has shown, without degrees of government regulation of competition, public service industries have become inadequate. Nor can it be expected that abolishing of regulation would lead to the best allocation of air transportation resources.

The Elements of Air Transportation Regulation

Air transport regulation can be viewed as having essentially four basic objectives:³

1. Prevent unreasonable prices which produce excessive earnings;
2. Ensure profits sufficient for the development and expansion of the industry;
3. Assure that a wide variety of services are offered to the public;
4. Maintain certain types of directly unremunerative services that serve a broad public need.

¹ Meyer, John, *Competition, Market Structure and Regulatory Institutions in Transportation*, 50 Va. L. Rev. 212, 214 (1964).

² *Ibid.*, at 218.

³ Meyer, John; Peck, Merton; Stenason, John; Zwick, Charles. *The Economics of Competition in the Transportation Industries*, Harvard University Press, 1960, p. 11.

With the exception of the fourth objective, the others are generally considered to be the normal results of the workings of a competitive market.

Further, there are certain unique elements of air transportation which, if left to the free market processes, could create a concentrated industry in a relatively short period of time.⁴ These characteristics include the complexity of aircraft operations, the increasing expense of individual aircraft, the need for extensive maintenance facilities, and the fact that a high percentage of the passenger markets are between points of such low traffic density that even a single monopoly carrier might not be able to cover costs. Moreover, though, the air transportation system still must purchase its own goods and services from the environment of competition, for it buys its supplies at prices set by the economy as a whole, it compensates its employees at wage levels uncontrolled by government, and it must compete for both the consumer dollar and the capital dollar in the basically unregulated markets.⁵

All of the above shows that there are characteristics of the air transportation market that preclude its operating in perfect of workable competition, and that the middle ground between a natural monopoly and deregulation is desirable from the standpoint of public service and from the standpoint of economic gains in the economy as a whole.

Air transportation is perceived as performing an essential public service, namely, the movement of people and goods throughout the nation, lubricating the flow of commerce. It is this fundamental purpose, superimposed on the natural and proper competitive environments, which government seeks to achieve through its power of regulation.

The air transportation marketplace, and the nature of the business itself, provide a special role in the economy. Airline customers, including government, business, and communities relying on airline services, have a need for such services at times, to places, and under circumstances ordinary business would not provide. This need is repeatedly emphasized in the demand for such services expressed by the public at route hearings before the CAB, in legislation enacted by Congress, and generally in the marketplace.

The National Air Transportation System

Thus, the result of this government involvement, combined with the benefits of a vital private enterprise, has been an environment of regulated competition. This environment has provided a major impetus for the development of the present national air transportation system sought by Congress in the public interest since the enactment of the Civil Aeronautics Act of 1938 in response to the unregulated economic climate and resulting chaos characterizing the preceding decade.⁶

The national air transportation system is characterized by stability, speed, reliability, and, above all, a vast network of interlocking air routes connecting 58,000 city-pairs. Its value to the nation and the public is derived from all of those essential features—providing society with speed, mobility, and convenience through the integrated service network, contributing to employment, directly and indirectly through allied services and related industries, and making a significant gross contribution to the total output of the United States.

It is the continued strengthening of this system in the public interest which the issue of regulatory reform concerns, and which is the stated goal of these hearings.

OBJECTIVES OF REFORM: THEORY AND THE "REAL WORLD"

Many of the regulatory policies and procedures developed over the years by Congress and the Civil Aeronautics Board naturally have been the subject of discussion and debate among articulate and learned proponents and critics—in government, in institutions of learning, and within the airline industry. Especially in recent times, the debate has been extended even to question the continued wisdom of the underlying principle of regulated competition itself.

Mr. Chairman, you have spoken of the obligation of Congress, in its role as legislative overseer of the regulatory structure, to examine that structure to assure that the CAB carries out its responsibility to regulate air carriers in the public interest, and to make such changes as may be required. This process is

⁴ *Ibid.*, p. 228.

⁵ *Ibid.*, p. 2.

⁶ First Annual Report of the Civil Aeronautics Authority, 1940, p. 1.

not only useful, but patently necessary, we believe, to assure the continued vitality of our industry and the public service it provides.

The Real World

We believe it essential that in the deliberations today, and in those which will follow, special care be taken to insure that it is the "real world" of air transportation which is the subject of scrutiny. Hypothetical models alone—based as they are, not on the actual demonstrated needs of the traveling and shipping public, but rather on theories applicable only in an insulated theoretical environment—may be helpful as a guide to thinking. But their application beyond the classroom or the text book must be carefully considered in light of existing, real circumstances.

We intend, therefore, to look to this "real world", today's and tomorrow's, to review what the objectives of air transportation and the underlying regulatory principles are; to identify the actual results of our system of regulated competition; and to suggest realistic areas of improvement in that system to render it better able to serve public needs in the last quarter of this century.

The Critics' View and Its Inadequacies

Many of those who have found fault with the regulatory environment in which air transportation now operates seek to achieve a laudatory goal: air transport service at minimum cost-based prices, principally through operation at higher load factors generally termed maximum efficient quality of service. We believe we have accomplished that goal taking into account another equally important goal, the need for adequate public service. Little, if any, attention is paid in the scholarly works published by the critics to this important need which you have cited, Senator Kennedy, as the basic objective of airline regulation. After all, it is the provision of adequate public service, at reasonable prices, which by definition characterizes an effective public transportation system. And adequacy can be measured in many ways, in respect to a particular market for example, by a precise measurement of volume, timing of schedules, ability to obtain seats on a particular flight, load factor on flights operating at convenient times.⁷ To serve the public adequately, the air transportation system must permit reasonable access between all points on the system.

Additionally, the critics have paid little attention to the need for providing an amply differentiated range of qualities and types of any given product to choose from,⁸ a prime objective of competition in our nation's economic system. As I shall demonstrate, it is this choice of product, at a varying range of price, which today characterizes air transportation in the United States, and it is a measurement of the effectiveness of our competitive environment in serving the public.

A system which would fail these tests clearly would not be providing effective public service and, in turn, contributing to the nation's economic strength.

In reviewing the results to date of regulated competition in public air transportation, we shall focus on those objectives sought by critics, always mindful of the overriding public requirement for adequate service.

ACHIEVEMENTS OF REGULATED COMPETITION SINCE 1938

The True Costs of Air Transportation

Since 1938, average scheduled airline passenger fares, in constant dollars, have steadily declined relative to costs of all U.S. goods and services (exhibit 1). The fact can be further demonstrated by the following example: When compared to prices of certain other commonly purchased items in the years 1948 and 1974, air fares represent a bargain to the consumer. During this time the round trip air fare between New York and San Francisco rose 21 percent; a pound of round steak increased in price 100 percent; a pair of men's shoes increased over 120 percent; a Chevrolet automobile increased over 220 percent; and though not commonly purchased, a year's tuition at Harvard increased over 640 percent (exhibit 2).

Further, in comparison with other modes of common carrier transportation, air fares, in 1938 constant dollars, have dropped markedly more than either bus or coach rail fares (exhibit 3).

⁷ Milwaukee-Chicago-New York Restriction Case, 11 CAB reports, 310, 319 (1950).

⁸ Clark, J. M., *Competition: Dynamic Criteria of Appraisal*, Business Organization and Public Policy, Leven, H. O., ed., 1958, p. 8.

Air freight rates have similarly experienced a continued decline relative to costs of all U.S. goods and services in the period 1946-1974 (exhibit 4).

Choice of Fares

For the domestic air traveler, a wide choice of fares is currently available, depending on time of day or week traveled, length of stay, and class of service desired. Notable among these fares is the recently approved broad based discount fare, which provides an attractive bridge between charter and regular fares.

Public use of the entire range of available fares historically has been extensive. For the year ending September 1974, for example, use of lower than full fares accounted for almost one-third of all coach revenue passenger miles (exhibit 5).

Price Performance

From the evidence presented here, it is inaccurate and unfair to draw the conclusion that air fares are high. Further, to then blame it on a lack of government regulation or the nature of regulated competition is, of course, also inaccurate and unfair. Let me summarize what I have just presented regarding air fares:

1. The record of regulated competition in the air transport industry shows that, in constant dollars, air fares are 64 percent less than they were in 1938.

2. In the spectrum of price changes in current dollars, since 1948 prices of nearly all U.S. goods and services exceed the change in the price of air fares. Air fares have averaged less than 1 percent a year increase over this time period.

3. The use of scheduled air fares includes individuals with incomes well below the average in the U.S. A 1974 Gallup survey showed that one of every seven adults making less than \$7,000 annual income flew on the scheduled airlines. Overall, the Gallup data revealed that 18 percent of all adults making one or more trips by air made less than \$7,000 yearly (exhibit 6).

4. Although the airlines are more fuel intensive than most U.S. industries and have had to absorb \$1 billion of additional fuel costs in the past year, still general air fare increases in 1974 were less than the change in the consumer price index and considerably less than the change in the wholesale price index. The addition of the 5 percent general fare increase in late 1973 would not alter this comparison appreciably.

This pricing performance, at an adequate level of service, either in the long run or the short run, could not have been matched by pricing in a deregulated environment. In fact, in the long run, as evidenced by the pricing performance of the U.S. economy as a whole, deregulation of the air transport industry would have placed prices and fares at a much higher level than now exists.

CAB Performance Standards—The Effect of the DPFI

Members of Congress were primarily responsible for the Civil Aeronautics Board initiating the Domestic Passenger Fare Investigation in January 1970. As a consequence, the CAB conducted a most thorough and comprehensive review and revision of the procedures by which domestic passenger fares are regulated. That part of the investigation covering fare level and rate of return procedures began in January 1970, and the results were first applied in May 1973. It involved thousands of hours of staff work, research, and open public hearings participated in by any who so desired. Administrative law judges listened to the arguments of interested parties for assuring, among other things, that the airline industry was responsive to consumer interests and needs, and that such benefits to the traveling public in the form of reasonable air fares were passed on. The results produced an innovative step forward in regulatory procedures, and were a testimonial to the air transport industry's staying well ahead of any need for wholesale regulatory reform. The CAB standards of efficiency assure that there is no automatic fare increase to consumers for so-called industry cost mistakes of purchasing excess equipment, of misestimating a market and hauling too few people, or for giving away business through discounting. The CAB standards of efficiency adjust for all of these, and no fare increase is allowed until these adjustments have been made.

Since May 1973 each fare increase granted to the industry, including the 4 percent increase granted last November, has been based on meeting these standards.

Many of the participants in various phases of the investigation include those who now criticize the CAB for approving fare changes.

These CAB fare level procedures, resulting from open public hearings, are not arbitrary, were not developed from clandestine meetings, and have a clear and

comprehensive public interest platform built in. Yet the opposite and misleading impression is often given by critics as an emotional appeal to consumers. As we have shown, in fact it is the consumer who is the primary beneficiary of these procedures.

Adequacy of Service—Load Factors

As I have emphasized previously, in addition to meeting the need to provide reasonable prices, the primary function of our industry is to provide adequate and reliable service throughout the nation, to permit people and goods to move rapidly and smoothly from any one community to any other. This system, then, must provide service at the times and places desired by the public.

Senator Kennedy, in your statement on the Senate floor on December 16, you referred to the difficulty a student in Boston might experience in returning to his home in Detroit because of a lack of available seats on that route. I am sure you will recall that the system load factor standard established by the Board in the Domestic Passenger Fare Investigation was 55 percent. But the difficulty of relating any particular load factor to adequacy of service is clearly illustrated by your example.

In 1974, the average load factors experienced by the single carrier with nonstop operating authority in the Boston-Detroit market was 59 percent. Thus, though some critics of our industry believe our system load factors should average as high as 65 percent, you have cited an example of possible inadequate service at a load factor of 59 percent. In reality, you have underscored a point seldom understood by our load factor critics. To average 59 percent, the Boston-Detroit market shows a monthly load factor range from 52 to 67 percent, this example offering further demonstration of the seasonality of our markets (exhibit 7). In order to reach the higher system average load factor standards suggested by many, the airlines would be required to adjust capacity to conform to low-demand periods, inevitably resulting in less service available to passengers in busier times.

The question of capacity, then, is not a simple one in the real world we serve. There is a common tendency among observers of the scheduled air transport industry to overlook the fact that, although 30 percent of our domestic traffic is produced by only 70 larger city-pair markets, 40 percent is derived from 840 markets, and another 30 percent is produced in some 57,000 smaller markets (exhibit 8). The units of capacity available to serve these disparate markets are not infinitely adjustable—they are not, in fact, those elusive available seat-miles we hear and read about; they are airplanes, each containing many seats.

Thus, to add a few extra seat miles in a market, where the individual aircraft have maximum seating density, requires the addition of significant numbers of seats, represented by another flight, or the substitution of larger aircraft. It should be noted that increasing the size of aircraft does not increase frequency for the convenience of passengers in a smaller market. Similarly, the reduction of a few seat miles to adjust to a temporary down-turn in traffic in a particular market or to changing economic conditions normally requires the elimination of a flight. For example, one major carrier operates a single nonstop Boeing 707 between New York and Phoenix, producing on that one route 197 million seat-miles annually. How can a few seats be added or reduced on that route?

Whether or not the real world facts conform with any theoretical model, simply stated, the decisional units our industry planners work with are not easily fine-tuned. They cannot be easily adjusted without the danger of substantial elimination of needed public service, and without potential damage to the integrated air transportation network. And the macro-analysis frequently applied to our industry does not take into consideration the units of capacity we must deal with every day.

The Integrated Network—Through Flights and Connections

In light of these facts, how does the scheduled air transport industry provide service for more than 57,000 smaller markets, and integrate those markets into the network including the 70 major markets?

This achievement is the result of two essential devices—through flights and connections.

Through flights constitute extensions of flights to provide service for a smaller amount of local traffic to extended points and major markets. Similarly, through the connections offered by the integrated scheduled air transportation system, it is possible to make transfers onto other aircraft in order to reach any of the 540 airports served. Because the number of passengers in many of these local

markets is far below the level required to support single-plane service,⁹ it is by the use of through flights and connections that carriers are able to provide the present significant level of single plane service and transfer service.

Coincidentally, then, this process becomes the principal basis for the airlines' ability to serve an extended network of cities. Of course, it also results in lower industry load factors which are brought down by both through and connecting flights from low density cities.

The Operation of the Network

In a clear example of this process, one of the major scheduled airlines provides daily DC-8 one-stop through service from Fresno, California, via Denver to Chicago. At Denver, this flight is connected by 11 other flights, from such disparate originations as: Pueblo, Colorado; Cheyenne, Wyoming; Great Falls, Montana; Sacramento and San Jose, California. Figure 1 depicts this complex for an average of a peak and low traffic month. On this eastbound flight, 27 passengers originating at Fresno ultimately terminate at Chicago. In addition, approximately 42 passengers board the flight in Denver from 11 connecting flights. Out of a total passenger load of 85 from Denver to Chicago, therefore, over three-fourths do not originate in Denver. The majority of passengers on that flight are fed to it through the highly integrated scheduled system, a fabric woven over 37 years of regulatory supervision of air transportation.

⁹ The Domestic Route System —Analysis and Policy Recommendations, Bureau of Operating Rights, CAB, October, 1974, p. 79.

EXAMPLE OF CONNECTING AND THROUGH - FLIGHT COMPLEX

UNITED AIRLINES FLIGHT 280

EASTBOUND

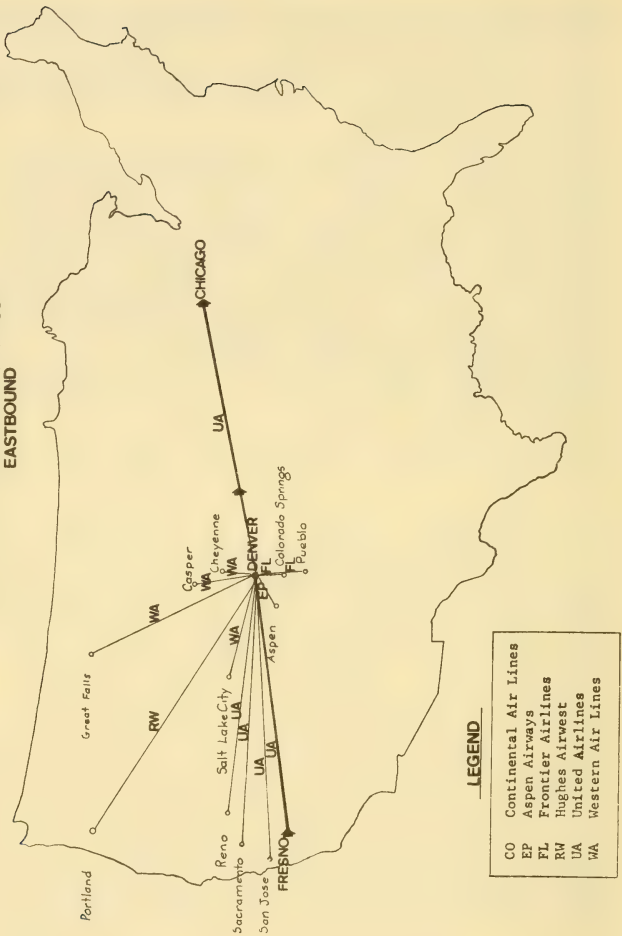


FIGURE 1

On the return flight, originating in Pittsburgh, operating through Chicago and Denver, and terminating in Fresno, the intricate fabric of through flights and connections is even more apparent, as shown on figure 2.

Further dramatic examples of this principle are readily available, e.g., Albuquerque, New Mexico; Moline, Illinois; Nashville, Tennessee; Portland, Oregon; Providence, Rhode Island; Tucson, Arizona, are readily accessible to Akron/Canton, Ohio, with a single connection and never more than a single stop.

Furthermore, in 1972 this system provided single plane service to all markets with over 70 passengers a day, and to all but three markets carrying more than 60 passengers daily—a direct result of the combination effect of through traffic between several markets on a single linear route.¹⁰ Additionally, in 1972 on flights between cities less than 100 miles apart, 90 percent of all passengers transported connected to other flights or were carried as through passengers; on flights between cities 600–800 miles apart, such connecting or through passengers comprised about two-thirds of the total¹¹ (exhibit 9).

The Interdependence of the Network

The quality of service to the 57,000 smaller relatively low-demand markets, therefore, is directly dependent on the highly integrated, stable air transport system. The system operates without significant changes in the number of carriers offering service, without the instability which would characterize unrestricted freedom of entry and exit, and with the CAB-imposed requirement that service continue to be provided where warranted in the public interest. Lapses in service resulting from carrier failures, from large scale withdrawals of service, or from lack of a tie-in to ticketing, baggage handling, or other benefits of the present system, would inevitably disrupt that system, and would inevitably work hardship first on those living in smaller communities who rely on quality scheduled air service to meet their transport needs. Moreover, automobile gasoline consumption would increase as people are unable to use air transportation and are forced into the use of ground transportation. Further, it would represent a major cost to the nation in time lost in conducting business or time shortened for personal or pleasure reasons.

In January, 1973, Dr. Gary Fromm of Data Resources, Inc., completed a study for ATA on The Value of Aviation Activity. The study estimated cost and time differentials in 1970 among four modes of service over the average airline flight distance of 679 miles. Cost and time estimates covered the entire trip, including not only enroute but terminal and local access costs and time as well.

The DRI study also estimated the average family income of an air traveler in 1970 to be \$22,500 a year. If such a traveler valued his time at an hourly rate equivalent to his annual salary (\$10.47 per hour), the following table would illustrate the monetary value of traveling by air versus alternative modes:¹²

	Added trip cost of air versus alternative mode	Time saved in traveling by air (minutes)	Monetary sav- ings in traveling by air
Air/rail	\$13	441	\$64
Air/bus	17	563	84
Air/auto	17	508	72

Birmingham, Alabama, to Miami, Florida, is about the same trip distance (661 miles) as the average distance used in the DRI study. In 1970 there were an estimated 29,000 passengers in this market who started their air trip in one of these cities and whose final destination was the other city.¹³ The dollar value of the time savings in this market alone would be:

	<i>Time savings (in millions)</i>
Air/rail	1.9
Air/bus	2.4
Air/auto	2.1

¹⁰ Ibid., p. 62.

¹¹ Ibid., p. 65.

¹² Fromm, Gary, and Data Resources, Inc, Value of Aviation Activity, ATA, January, 1973, pp. 9 and 12.

¹³ CAB, Origin-Destination Survey of Airline Passenger Traffic, Domestic, table 8, 4th quarter 1970, p. 86.

On this basis elimination of air service to thousands of smaller city-pair markets would cost the national economy billions of dollars. Substitution of less time-efficient aircraft would also cost the air traveler and the national economy. Commuter aircraft, for example, cannot fly as fast as larger propeller or jet aircraft nor as far. Again, application of this time loss impact to thousands of city pairs would cost the economy billions of dollars.

Efficient and Productive Operations

Within the framework of regulated competition, the scheduled airlines have produced, through operational efficiency and productivity, the quality public service I have described.

The scheduled airlines have operated with a high level of schedule reliability. In 1974, 98 percent of all miles scheduled were actually flown, a record especially remarkable in view of the variety of weather conditions experienced and the degree of mechanical stress placed on a system involving 13,000 daily flight operations. A non-integrated system, lacking regulatory controls, could not be expected to approach this degree of reliability.

Equally remarkable, the scheduled airlines have conducted their operations in a time of high inflation with a high degree of cost control—especially over those costs which were peculiarly within the power of airline management to control. For example, advertising costs per revenue ton-mile in the third quarter of 1974 were 8 percent less than in 1967, and passenger food costs per passenger mile rose less than 5 percent over the past year. On the other hand, since 1967 labor cost per employee has risen about 92 percent and fuel cost per gallon by 150 percent (exhibit 10). Nevertheless, in 1974 the scheduled airlines carried 20 percent more passengers than in 1969, accounting for 30 percent more revenue passenger miles, but with 3.5 percent fewer employees.

Clearly, then, the management record of the scheduled airlines is a good one, especially under conditions of great stress, and the payoff for the public has been in low fare levels as measured in comparison with other goods and services provided in the economy at large.

Finally, it is important to note that the speed and safety record of the industry, resulting from technological improvements which the airlines helped develop, has permitted the public to travel quickly and safely across the nation. The impact of these developments on the abilities of government and private businessmen to conduct their important affairs, and the general public to travel on personal vacation or pleasure, must be weighed in any assessment of the effectiveness of regulated competition.

IMPACT OF REGULATORY REFORM

Public Policy, Section 102

The scheduled airlines believe that this review of the regulatory structure and environment in which air transportation operates can product improvements to the excellent system that exists. We shall suggest, today and in later stages of your deliberations, some areas where we believe adjustments might be considered.

Nevertheless, while any of our carriers may be critical of some aspects of the specific application by the CAB of its statutory authority pursuant to the Federal Aviation Act of 1958, we believe that underlying public policy contained in section 102 of that Act is sound. It is vital to our nation's long-term interest that the precepts established in section 102 be reinforced, not discarded. For, as the real world results we have described so clearly demonstrate, those principles have worked well to serve the broadest public interest. In fact, if section 102 did not exist, it would most certainly be needed now.

Theory Versus Practice—The Public Interest

No one can be certain of the consequences of tampering with the structure—least of all those who base their proposals on so-called “perfect” econometric or theoretical models. Such models are perforce based on assumptions untested in the special marketplace and operating environment which controls air transportation¹⁴—and they are developed fundamentally without a basic regard to all of the public interest considerations which must concern Congress, the CAB, the

¹⁴ Assumptions on these models generally begin with *ceteris paribus*, i.e., all other things remaining equal. In the real world all other things do not remain equal and the change in one factor must be reviewed in light of changes in all other factors.

airlines, and the thousands of U.S. communities served by scheduled air transportation.

These considerations, broadly termed public service, are not susceptible to neat econometric equations and tidy quantification, but they are nonetheless real, and frequently are determinative if a viable national air transportation network is to continue and contribute to the national economic welfare, operating as it must within the matrix of conflicting interests.

Moreover, in meeting the critics on their own ground, a word must be said with respect to the consequences one might anticipate from wholesale, so-called "free market" restructuring of the system.

Disintegration of the Network

The present system represents a wholly integrated network of scheduling, connections, interlining, and routing among and between carriers serving cities of varying size and geographic proximity to each other. Despite this high degree of integration, the system is dynamic—it is continually changing to meet new traffic needs. A glance at the Official Airline Guide (which contains the schedules for the entire air transport network) provides dramatic evidence of this point. For example, the OAG (North American edition) published on February 1, 1975, is 898 pages long. This massive volume depicts the schedules of every scheduled carrier in North America, to and from virtually every community served, with connections indicated. The OAG is republished every two weeks, and incorporates the most up-to-date changes in schedules, connections, and service provided throughout the system, throughout the 58,000 U.S. markets (and some foreign markets) served by the scheduled airlines.

It is the continuity and complete integration of this network which would be jeopardized by drastically revising or dismantling the structure so carefully constructed, and continually improved, over the last 37 years. And with what result?

First, there can be little doubt, at least in the short term, that, adaptable though they may be, scheduling, connections, interline routings, ticketing and baggage handling would be severely disrupted by airline entry into and exit from markets on an unrestricted basis. Customer service inevitably would be most adversely affected.

Even more important, as some have properly contended, free market forces would result in scheduled airlines' leaving many less profitable markets, and concentrating only on certain of the major routes, with the consequence that medium and smaller size cities of the Northeast, Midwest, South, and Far West would suffer.

How would they suffer? First, their access to major markets would be restricted severely. Certainly many entrepreneurs would seek to serve some of those markets. Such service would be represented by airlines of varying reliability, new and old, some of erratic or marginal financial strength, often suffering at the outset by the extraordinary start-up costs required for purchase of aircraft and establishment at airport facilities.

The record of the commuter carrier industry, good as it is with respect to reinforcing the existing scheduled air transportation network, offers ample proof of the foreseeable circumstances confronting many smaller operators seeking to serve the many less dense markets now served well through the effects of through and connecting scheduled air transportation. While much has been said and written of the diseconomies of scale in air transportation, the diseconomies of small scale with respect to stability, dependability, and overall adequacy of service are particularly hazardous and should be carefully examined.

For example, in 1972, 431 U.S. cities received scheduled passenger commuter service. Of those cities seventy-four (17 percent) were abandoned in 1973, and service was added to 104 new, previously unserved cities. Thus, in a single year, 178 cities experienced a change in scheduled commuter service—roughly one-third of all cities receiving such service. The volatile experience of the largely unregulated commuter system hardly gives one confidence that the consequences of a free market approach to air transportation would represent an adequate substitute for the benefits of the stability which has characterized the national system wisely devised by Congress and regulated by the CAB since 1938. Reliable service to small and medium cities especially is threatened by any weakening of the integrated structure, and a weakening of those markets threatens the continued strength even of many of the larger markets.

Further, the cost to the smaller communities of operating their existing airport facilities in the absence of regular scheduled service would be high. Maintaining a reasonably up-to-date facility for uncertain or sporadic service may well prove beyond the means of many communities. If those communities were to require the carrier serving the community to bear a high proportion of these expenses on the basis of irregular operations, the cost to that carrier may well be prohibitive even for the level of service it is otherwise capable of providing. Thus, the disintegration of the system may well feed on itself—resulting in even less service to many U.S. communities not closely proximate to the major markets.

The Public Cost of 65% Load Factor

The relationship between load factors and service requirements for the many communities receiving scheduled air service is profound. Many critics of the airline industry have criticized the load factor performance. Yet, the 55 percent load factor standard established by the Civil Aeronautics Board, taking into account load factors of 30-40 percent on some low density routes and peaks of 80-95 percent on some high density routes, incorporates an allowance for a level of service suitable for maintaining the expansive network of hundreds of smaller communities throughout the United States. In order for these communities to be served, average system-wide load factors cannot be high.

This result is graphically exemplified by the impact on air transportation of the current energy crisis. We have developed estimates of possible future reductions in service as measures of the impact of the Administration's energy proposals. In order to meet a 65 percent domestic system load factor at prevailing fare levels, as suggested by some as a solution to the airlines growing fuel cost problem, available seat miles (system capacity) would have to be reduced 25 percent, and hundreds of aircraft grounded, with tens of thousands of employees released. The effect of cutbacks of this magnitude on service to cities large and small would be a severe penalty to public service and to the economy as a whole.

RECOMMENDED REGULATORY REFORM CONSIDERATIONS

In general, the airline industry believes that the regulatory environment within which we operate has served the public interest well. We believe the results support that conclusion.

However, in certain instances, airlines have opposed and continue to oppose the manner in which the regulatory process has been carried out. And we believe that certain areas of economic regulation of our industry do require attention.

Regulatory Lag

By no means restricted to the procedures adopted by the Civil Aeronautics Board, the problem of regulatory lag (delay in regulatory decisionmaking) is endemic to the regulatory process throughout much of government. As a consequence, decisions when made may no longer be timely or well-suited to the circumstances. Notable among the public benefits resulting from the DPEI has been the reduction of time between cost changes and fare adjustments, particularly early in 1974 with respect to the impact of the fuel crisis on airline costs. It seems sensible to our industry that the application to other areas of regulatory decision-making of more efficient and streamlined approaches, with full public participation at all stages, would result in a more responsive regulatory process.

Reporting Requirements

As with respect to the question of regulatory lag, we strongly believe that the proper requirement for full and complete industry reporting of economic and financial statistical data need not result in duplicative and redundant effort on the part of the industry or the regulator. The application of reasonable cost and benefit analysis of the current reporting requirements will result, in our opinion, in a streamlining of this effort and substantial cost savings to both industry and government, without in any way impairing the public interest in full and complete data. In fact, through simplification and elimination of redundancy, much of the complex data now available could be rendered more understandable, and therefore more useful to all interested parties to the regulatory process.

Continued Refinement of Regulatory Standards

The Civil Aeronautics Board, notably in the DPEI, has established standards for measurement of industry performance. While our industry has generally

supported their adoption, there continue to be differences of opinion with respect to the application of some of those standards. We believe regulatory standards need not be set in concrete. On the contrary, they should be subject to continuing scrutiny by the Board, and amended when and as required in the public interest. Such continuing refinement would characterize a regulatory process truly responsive to the continuing changes in the dynamic American economy.

Route Development Policy

The scheduled airlines believe the undertaking by the Civil Aeronautics Board of a comprehensive review of route development policy is desirable. There may be different opinions within our industry on the findings, conclusions, and recommendations contained in the study undertaken by the CAB's Bureau of Operating Rights, the Domestic Route System: Analysis and Policy Recommendations.¹⁵ However, we believe careful consideration should be given to the view contained in that report that:

... regulatory route and route-related policies should be directed to improving the efficiency and quality of the system, through careful expansion of route authority when required by traffic, and through route rationalization.¹⁶

Because of our obligation to provide the public adequate service, we share the Bureau's statement that without such policies:

... it is possible that the quality and efficiency of the system will decline over time and, ultimately, adversely affect the general economy.¹⁷

The Board, our industry, and the public should carefully consider the Bureau's recommendations with respect to requirements in future route proceedings for submission of data; implementation of published standards for route expansion consistent with the Board's DPFI goals and traffic requirements; and route rationalization. This approach could represent a significant step in dealing with an aspect of air transport regulation deserving attention.

Tariffs

Section 403 of the Federal Aviation Act of 1958 provides for carrier filing of full and complete tariffs with the CAB for public inspection.

The principle embodied in this statutory requirement is clear—that the public interest is best served by advance notice of applicable rates and services, rules, regulations, and practices for air transportation. Under current procedures, achievement of this objective is impeded by last-minute approval or suspension of tariffs by the Board. The scheduled airlines have advocated a change in these procedures, to extend the filing deadline from 30 days prior to implementation to 45 days, with Board decision required after 30 days, thereby providing 15 days advance public notice of tariff changes. Further, in view of the necessary complexity of tariff filings, we believe adoption of a simplified short-form tariff would work to enhance public understanding of a given tariff change. The short-form, of course, would not replace the more complete tariff filing properly required for complete information purposes. However, it would serve to render more meaningful to the consumer the effect of any given tariff change.

In conclusion, we wish to reemphasize our support for the effort this Subcommittee has undertaken, today and in later sessions, to review the effectiveness of federal regulation of the scheduled airline industry. We believe the public benefits derived from regulation have been many; and we urge consideration of the suggestions for improvement which we have made, and will make in coming hearings. Out of this process and the continued attention of Congress to the needs of the public for essential public air transportation services, we are confident the strength of the national air transport system is assured.

On behalf of the Air Transport Association, I wish to express our gratitude for the opportunity to discuss with this Subcommittee our views on this matter so vital to our nation's economic welfare.

¹⁵ Bureau of Operating Rights, CAB, October, 1974.

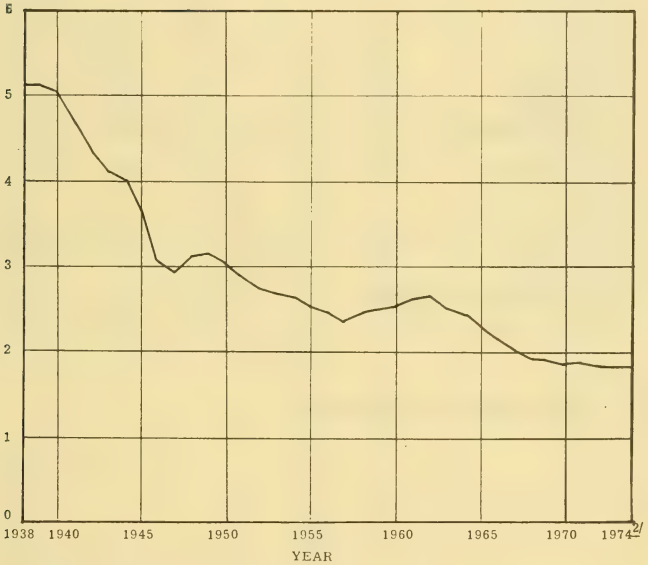
¹⁶ *Ibid.*, p. 9.

¹⁷ *Ibid.*, p. 146.

EXHIBIT 1

AVERAGE FARE PER PASSENGER MILE
DOMESTIC SCHEDULED SERVICES -- TRUNK AIRLINES
 (1938 Constant Dollars)1/

AVERAGE
 REVENUE
 PER
 PASSENGER
 MILE
 ¢



1/ Deflated by Implicit Deflator - GNP, Adjusted to 1938 Base.

2/ 1974 Yield for First Nine Months.

EXHIBIT 2

CHANGES IN AIRFARES COMPARED WITH
OTHER U.S. PRODUCTS AND SERVICES
 (Current Dollars)

<u>Item</u>	<u>1948</u>	<u>1958</u>	<u>1968</u>	<u>1974</u>	<u>Per cent change 1948-1974</u>
House	\$47,409	\$59,558	\$72,840	\$100,000	+110.9%
Family Size Chevrolet	\$ 1,255	\$ 2,061	\$ 2,656	\$ 4,119	+228.2%
Newspaper (The New York Times)	3¢	5¢	10¢	15¢	+ 400%
Ticket to Broadway Musical	\$ 6.00	\$ 8.05	\$ 12.00	\$ 15.00	+ 150%
Ranch Mink Coat	\$ 4,200	\$ 4,000	\$ 4,200	\$ 4,500	+ 7.1%
Nathan's Hot Dog	20¢	25¢	35¢	50¢	+ 150%
Pair of Blue Jeans	\$ 3.45	\$ 3.75	\$ 5.29	\$ 11.25	+226.1%
Gallon of Gasoline	25.9¢	30.4¢	33.7¢	55.6¢	+114.8%
Pair of Men's Shoes	\$ 9.95	\$ 11.95	\$ 16.95	\$ 21.95	+120.6%
Year's Tuition at Harvard	\$ 455	\$ 1,250	\$ 2,000	\$ 3,400	+647.3%
Hospital Cost per in-patient day	\$ 13.09	\$ 28.17	\$ 61.38	\$ 114.90	+777.8%
Roundtrip Airfare New York-London	\$ 630	\$453.60	\$484.50	\$ 640	+ 1.6%
Phone Call, New York to Topeka, Kansas (day rate)	\$ 1.90	\$ 1.80	\$ 1.40	\$ 1.25	- 34.2%
Pound of Round Steak	90.5¢	\$ 1.04	\$ 1.14	\$ 1.81	+100.1%
Pound of Chicken	61.2¢	46.5¢	39.8¢	55.7¢	- 9%
Roundtrip Airfare New York-San Francisco	\$286.30	\$ 208	\$ 290	\$ 346.30	+ 21.0%
Median Family Income	\$ 3,187	\$ 5,087	\$ 8,632	\$ 12,700*	+298.5%

*Projected

Source: New York Times and Official Airline Guide

EXHIBIT 3

AVERAGE FARE PER PASSENGER MILE
 INDEX 1938=100
 (Constant Dollars)^{1/}

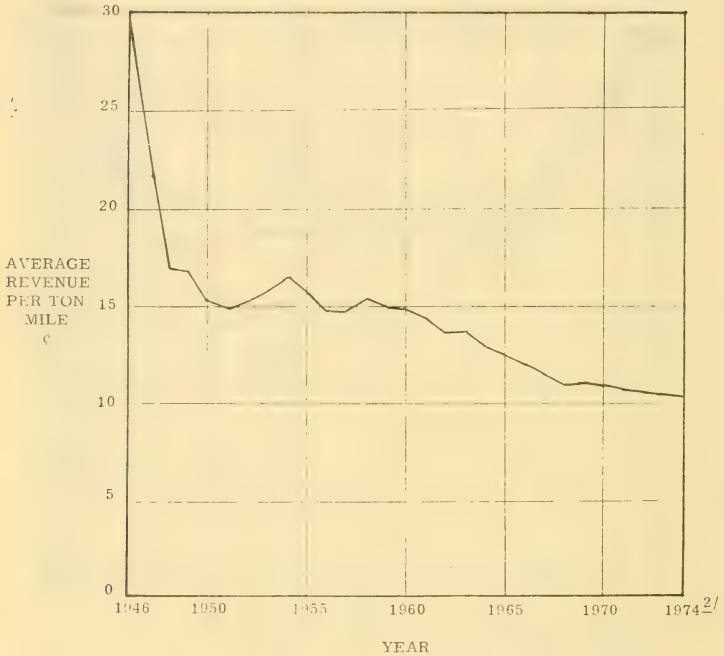


^{1/} Deflated by Implicit Deflator - GNP, Adjusted to 1938 Base.
^{2/} 1974 Data for First Nine Months.

Exhibit 4

AVERAGE AIR FREIGHT RATES PER TON MILE

DOMESTIC OPERATIONS
 U. S. SCHEDULED AIRLINES
 (1946 Constant Dollars)^{1/}



^{1/} Deflated by Implicit Deflator - GNP, Adjusted to 1946 Base.

^{2/} 1974 Yield for First Nine Months.

EXHIBIT 5

DISTRIBUTION OF TRUNK AIRLINES SCHEDULED COACH FARES
YEAR ENDED SEPTEMBER 30, 1974
48 STATE DATA

<u>Fare Type</u>	<u>Revenue Passenger Miles (000, 000)</u>	<u>Percent of Total</u>	<u>Yield (¢ per RPM)</u>
TOTAL FULL FARE	65,132	68.0	7.59
TOTAL DISCOUNT	30,688	32.0	5.71
Youth Standby	121	0.1	6.12
Youth Reservation	797	0.8	6.97
Family	6,598	6.9	6.88
Discover America	3,957	4.1	5.75
Military Standby	738	0.8	3.80
Military Reservation	2,555	2.7	5.32
Group	1,372	1.4	5.77
Child	1,683	1.8	4.76
Excursion	1,180	1.2	5.59
Other	<u>11,687</u>	<u>12.2</u>	<u>5.30</u>
TOTAL	95,820	100.0	6.99

Source: Monthly carriers submission to the Civil Aeronautics Board.

EXHIBIT 6

INCOME CHARACTERISTICS OF ADULTS
WHO HAVE FLOWN ON REGULAR PASSENGER AIRLINE

<u>Annual Family Income</u>	<u>Percent Within Each Income Group Who Have Flown During Past 12 Months</u>	<u>Percent of Adults Making One or More Air Trips During Past 12 Months By Income Group</u>
\$15,000 and over	41	46
\$10,000 - \$14,999	22	24
\$ 7,000 - \$ 9,999	16	9
Less than \$7,000	15	18
Undesignated		<u>3</u>
TOTAL		100

Source: The Gallup Organization, Inc., The Incidence of
Air Travel Among the General Public, 1974

EXHIBIT 7

1974 LOAD FACTORS
NON-STOP SERVICES -- BOSTON-DETROIT MARKET

	<u>Load Factor</u> <u>(%)</u>
January	54
February	53
March	58
April	64
May	67
June	67
July	58
August	63
September	59
October	59
November	53
December*	52
Average	59

* Estimated

Source: Company records of carrier.

EXHIBIT 8

DISTRIBUTION OF AIRLINE
PASSENGER TRAFFIC BY NUMBER
OF CITY PAIRS
 (Year Ended June, 1974)

<u>Percent of Total Passenger Miles</u>	<u>Number of City Pairs</u>
10%	7
20%	30
30%	70
40%	145
50%	272
60%	494
70%	908
100%	58,000 (Approx.) ^{1/}

1/ Includes markets partially served by commuter airlines when a part of a trip for which a certificated carrier sells the ticket.

Source: CAB, Origin-Destination Survey of Airline Passenger Traffic - Domestic, Second Quarter 1974.

EXHIBIT 9

PERCENT OF TRANSPORTED PASSENGERS WHO ARE
NOT THROUGH OR CONNECTING, BY FLIGHT DISTANCES^{1/}
(For City Pairs with Non-Stop Service)

<u>Mileage</u>	<u>%</u>
All Mileage	43.4
Less than 100 miles	9.6
100 to 199 miles	25.6
200 to 299 miles	39.0
300 to 399 miles	44.1
400 to 499 miles	43.0
500 to 599 miles	43.8
600 to 699 miles	51.3
700 to 799 miles	50.2
800 to 899 miles	54.1
900 to 999 miles	60.8
1,000 to 1,499 miles	75.2
1,500 to 1,999 miles	55.8
2,000 miles and over	92.1

^{1/} Excludes city pairs with fewer than 2,500 nondirectional O&D passengers (approximately 6.8 per day).

Source: CAB, the Domestic Route System; Analysis and Policy Recommendations, October, 1974.

EXHIBIT 10

ATA AIRLINE COST INDEX
U.S. TRUNKS AND LOCAL SERVICE CARRIERS
 3 Qtr. 1974

	INDEX (1967=100)	Percent Change Over 3 Qtr. 1973	Percent of Total Cash Operating Expenses ^{1/}
LABOR (Employment Cost Per Employee)	192.4	7.3	40.7
CAPITAL (Interest on Long Term Debt)	153.7	12.4	3.3
FUEL (Cost Per Gallon)	250.9	102.3	18.9
PASSENGER FOOD (Cost Per Revenue Passenger Mile)	125.3	4.5	3.6
ADVERTISING & PROMOTION (Cost Per Revenue Ton Mile)	92.1	(2.9)	2.0
LANDING FEES (Cost Per Aircraft Ton Landed)	229.2	17.6	2.5
AIRCRAFT MAINTENANCE MATERIALS (Cost Per Available Ton Mile)	91.8	15.6	2.9
TRAFFIC COMMISSIONS- PASSENGER (Cost Per Revenue Passenger Mile)	199.3	20.5	3.9
ALL OTHER (Implicit Deflator - GNP)	146.5	10.4	22.2
COMPOSITE	174.5	20.2	100.0

^{1/} Total Operating Expenses plus Interest on Long Term Debt
 Less Depreciation and Amortization.

ATA STUDY ON DEREGULATION

[In a letter dated February 7, 1975 the chairman of the subcommittee made more explicit a request of Dr. James for a list of routes that would be eliminated under more competitive conditions. On April 3, 1975 the Air Transport Association submitted to the subcommittee a reply extending more than 200 pages. The chairman then requested evaluations of this ATA study from the U.S. Department of Transportation, the Council of Economic Advisers, the Council of Wage and Price Stability, the General Accounting Office, Prof. John W. Drake, Purdue University, Prof. Theodore E. Keeler, University of California at Berkeley, Prof. Sam Peltzman, University of Chicago, Prof. Roger Sherman, University of Virginia, and Prof. Andrew Whinston, Purdue University. Their replies follow the ATA study in that order, p. 379 ff., below *except* that the replies of DOT and GAO are printed at the end of the record of the day of hearings of March 4, 1975, p. 2285 ff., below, because they were received too late for inclusion here.]

U.S. SENATE,

Washington, D.C., February 7, 1975.

Mr. GEORGE W. JAMES,
Air Transport Association,
Washington, D.C.

DEAR MR. JAMES: Thank you again for appearing before the Subcommittee on Administrative Practice and Procedure last Thursday. Your testimony and statement were very helpful.

As I mentioned at the hearing I should appreciate receiving further detailed specific factual information from you concerning the following questions:

1. You expressed a fear that under a more competitive system, airlines might abandon unprofitable routes, severely curtailing service to many communities. Would you please provide a list for us of those city-pairs that are now unprofitable and might be abandoned. In preparing that list, you should specify those city-pairs of which the cost of serving exceeds the *incremental* revenues generated. I ask that you proceed on an *incremental* cost basis because I believe that, in competitive industries, services and products are provided so long as incremental revenues exceed incremental costs. Of course, if you wish to proceed on some other accounting basis, please feel free to do so (but I should then appreciate an appropriate explanation).

2. It may be that the "feeder" line argument you made in your testimony amounts to more than a simple cross-subsidy argument. If so, will you please explain it more fully and provide empirical support?

3. It has also been argued that a competitive airline system (of the sort DOT suggested) would be a less safe system. If you hold this view, would you please provide documentary support for it?

We should very much appreciate receiving this information before our last hearing day on March 4, as we shall then begin to write our report.

Thank you very much.

Sincerely,

EDWARD M. KENNEDY,

Chairman, Subcommittee on Administrative Practice and Procedure.

AIR TRANSPORT ASSOCIATION OF AMERICA,

Washington, D.C., April 25, 1975.

Hon. EDWARD M. KENNEDY,
U.S. Senate,
Washington, D.C.

DEAR SENATOR KENNEDY: During my testimony to your Subcommittee on Administrative Practice and Procedure, and subsequently by letter, you requested specific information on the impact of deregulation on the present scheduled air transportation network. You asked us to identify present scheduled routes where

service might be reduced or eliminated if each airline could set its own prices and could enter or exit any market at will. Additionally, you requested further explanation of the "feeder line" argument and some comments on safety under deregulation.

The attached report represents the results of the analysis that ATA performed in response to your requests, and includes the application of a computerized analysis of the large interrelated domestic trunk carrier system. We believe this information may represent the first aggregate analysis of its kind. Results of the analysis reveal the adverse impact on scheduled air service that might take place under the assumption of total deregulation that we were asked to make.

As we have discussed with members of your staff, our analysis shows that under deregulation scheduled air service might be eliminated or substantially reduced on 1,820 nonstop routes throughout the nation. A list of these routes is attached. The 1,267 unsubsidized routes of the regional carriers were not included in this study.

Currently, trunk carriers serve 994 nonstop routes. Of these, 372 could be candidates for elimination under deregulation, while nearly all of the remaining 622 could experience sharp curtailment of service. Although a similar analysis has not been applied to the regional carriers, we have identified 826 of their nonstop routes as currently receiving direct subsidy under regulatory procedures.

It is conceivable that the 1,198 unprofitable, and subsidized, routes might not survive in a deregulated environment except in limited instances as an adjunct to more profitable routes or under large subsidy payments by cities or the Federal Government.

Enclosed are maps of each of the 48 contiguous states and the District of Columbia with an identification of each of the routes that could be jeopardized as well as a tabular listing of these routes.

Although each of the 1,198 routes would be a candidate for elimination under deregulation, it is recognized that some might be held for such reasons as feeding heavier travelled routes or aircraft positioning. Some also might be served by smaller commuter airlines. However, where such routes would remain, there would be a service instability not present today because carriers would view these routes as marginal and would probably move in and out as circumstances dictated.

Our analysis has also been extended to determine the impact on levels of service in a situation where significant fare reductions are made. We have done this for the domestic trunk system. The findings show, for example, that where fares are reduced 20 percent, the unprofitable routes rise from 372 to 564.

Some have contended that deregulation could occur while subsidy remained. In contrast with today's subsidy level of less than \$70 million for regional carriers only, we estimate that subsidy costs under deregulation could run as high as \$1 billion annually.

The analysis you requested has produced data shedding new light on load factors. The analysis shows, for example, that to raise the average system load factor from 55-60 percent, solely by eliminating the lowest load factor routes, could require dropping as many as 144,000 monthly flights, or 37 percent of all flights flown. If eliminating unprofitable routes were the only criteria for raising load factors, the data show that approximately 20,000 monthly flights, or 9 percent of the route system, would need to be abandoned.

One final point of interest in the analysis is that 33 of the largest 100 markets of the scheduled carriers had load factors in the 60-85 percent range. PSA's load factor on the Los Angeles/San Francisco route during this time period was 60.9 percent. Similarly, if interstate scheduled carriers served only the 33 interstate high load factor routes, they could operate more profitably and at lower fares. However, service in the present U.S. 58,000 city-pair network would be shattered.

We appreciate this opportunity to present relevant information regarding the public service impact of deregulation. We had hoped that this information will be reflected in the Subcommittee's report.

Sincerely,

GEORGE W. JAMES,
Senior Vice President-Economics and Finance.

Attachment.

CONSEQUENCES OF DEREGULATION OF THE SCHEDULED AIR TRANSPORT INDUSTRY

An Analytical Approach



**A study in response to questions posed by the
Chairman, Senate Judiciary Subcommittee
on Administrative Practice and Procedure
conducted by
The Air Transport Association of America**

APRIL, 1975

TABLE OF CONTENTSQuestion No. 1

From the Subcommittee Chairman, regarding abandonment of unprofitable routes	1
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Question No. 2

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From the Subcommittee Chairman, regarding the effect of deregulation on safety	12
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Exhibit A

Indirect Cost Factor Derivation
(Including Designation of Marginal Cost Elements)

Exhibit B

U.S. Scheduled Airline
1973 Routes (city-pairs) Risking
Loss of Service as a
Consequence of Deregulation
(In Order from the Least to
the Most Unprofitable)

Exhibit C

City-Pairs Risking Loss of Service
By State

Exhibit D

City-Pairs Risking Curtailment of Service
By State

CONSEQUENCES OF DEREGULATION - AN ANALYTICAL APPROACHQuestion No. 1

From the Subcommittee Chairman

"You expressed a fear that under a more competitive system airlines might abandon unprofitable routes, severely curtailing service to many communities. Would you please provide a list for us of those city pairs that are now unprofitable and might be abandoned. In preparing that list, you should specify those city pairs of which the cost of serving exceeds the incremental revenues generated. I ask that you proceed on an incremental cost basis because I believe that, in competitive industries, service and products are provided so long as incremental revenues exceed incremental costs. Of course, if you wish to proceed on some other accounting basis, please feel free to do so (but I should then appreciate an appropriate explanation)."

There are several significant ways to examine incremental revenue and incremental cost on the U.S. domestic airline system, including:

1. Use of macro-theoretical models of the airline industry;
2. Examination of past experience with unregulated airline markets;
3. Employment of a detailed analytical framework that simulates each element of the actual airline system.

The first approach (use of macro-theoretical models), though perhaps intellectually elegant, has the disadvantage that it cannot be validated -- conclusions cannot be tested against reality. Policy recommendations based on this approach are extremely risky, because results of an altered air transport system could easily be quite different from those predicted by the model builders, and costs to rectify unforeseen consequences could be enormous.

The second approach (examination of past experience) is limited by the paucity of such experience: the pre-1938 era in the United States, or the pre-1965 era of intra-California air transport. While the chaos experienced in both periods represents a useful point of comparison with the current stable regulated environment nationally and in California, in many respects both periods are incomplete for current analogy.

The third approach, involving a detailed route-by-route examination of the existing system, has been chosen as the best way to meet the shortcomings of the other two approaches. ATA, utilizing an existing computer simulation*, has analyzed the entire domestic trunk industry for the 48 contiguous states for 1973. Broad conclusions of the study show that, of the 994 trunk non-stop routes, 622 were profitable and 372 (or 37%) were unprofitable. The 372 unprofitable routes are prime candidates for abandonment under deregulation, recognizing that some of them might be retained for such purposes as providing feeder service and positioning of aircraft. Some also might be served by smaller commuter airlines.

In contrast, United Airlines, in a letter to the Chairman of the Senate Subcommittee on Administrative Practice and Procedure, pointed out the results of a similar analysis on its route system showing 50% of its non-stop routes were unprofitable.

Airline System Simulation

A computer program known as the Airline System Simulation, which was developed by and is the property of the Lockheed Aircraft Corporation, was used in producing a substantial portion of the results of this report.

The Airline System Simulation is the result of extensive research in concepts and methods, many discussions with airline representatives, and participation by one major trunk airline. It has been used in studies for airlines, the United States Government, and Lockheed. These studies have included investigations of the compositions of fleets, the assignment of flights, the economics of the supersonic transport (SST), and the design of the L-1011.

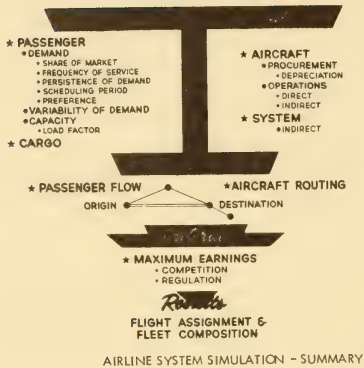
The simulation has been in continuous use since 1961. It is important to note that no changes were made in the Lockheed model in order to perform the simulation of this study.

The simulation is a comprehensive program that gives explicit consideration to such concepts as mixed aircraft types on a route, route interaction, and generation and allocation of demand, all of which are explained in detail in the attached booklet on the Lockheed Simulation Model.

Figure 1 is a summary of the concepts used in the model.

* The Lockheed Airline System Simulation, booklet attached.

FIGURE 1



Data Used and Comparative Results

Virtually all of the 48 state scheduled domestic trunk passenger airline system for the calendar year 1973 was used in this study. 994 non-stop route segments were included in the simulation. Where both trunk and regional airlines serve the same segment, their traffic is included in the segment total.

The following types of aircraft were used in the study as representative of the actual fleet mix in 1973:

B-747
 L-1011/DC-10
 DC-8-61
 B-707-300B/DC-8
 B-727-200
 DC-9-30/B-737
 DC-9-10

Since all passenger aircraft carry significant amounts of cargo, this source of revenue and cost was included in the study. CAB Form 41 data were converted to an average amount of cargo per passenger. These data ranged from 42 pounds per passenger in the B-747 to 27 pounds per passenger in the DC-9-10. The overall domestic cargo yield for U.S. trunk carriers in 1973 of 25.6 cents per ton mile was used. All-cargo aircraft are not included in the study.

This simulated representation captured 97.8 per cent of the revenue passenger miles as reported in Form 41 to the Civil Aeronautics Board (CAB). The remaining RPM's were contained in seasonal markets (those served less than ten months per year) and flight diversions due to weather or equipment problems.

As additional points of comparison, a yield of 6.37 cents per revenue passenger mile was achieved from the simulation. This compares favorably with the CAB Form 41 figure of 6.38 cents. The average flight segment length produced by the simulation was 580 statute miles. The CAB Form 41 data reports 577.

Methodology Employed

The Lockheed Airline System Simulation operates through a sequential process of adding flights to the system by following much the same logical process employed by airline planning staffs in developing their schedule plans. Development of a schedule plan begins with the initial assumption of no flight operations and no aircraft, but with a set of possible routes on which to use the aircraft. The economic impact of each possible aircraft/route combination is examined in sequence as shown in Figure 2. Initially, determination is made of the individual increments of passenger operating revenue and operating costs which would result from adding a flight to each possible route with each possible aircraft type. The flight addition that would produce the greatest difference between the increment of revenue and increment of cost is then added to the system. This process is iterated each time through the 994 route segments before a flight is added.

The costs used in the flight selection process consist of only those costs directly affected by the addition of a single flight (Figure 3 and Exhibit A). However, the total costs of operating at any given scale of operation consist of the marginal costs plus those other costs that are affected only by an overall scale of operations, i.e., system costs.* Therefore, after each flight addition is made on the basis of marginal costs, total operating costs are adjusted to include the additional system costs.

* In the context used here marginal and system costs equal fully allocated or total costs.

LOCKHEED AIRLINE SYSTEM SIMULATION

FLOW CHART NUMBER 1

FLIGHT ASSIGNMENTS TO OBTAIN MAX. EARNINGS

READ
IN
DATA

'FLY' EACH ROUTE
WITH EACH
AIRCRAFT

FOR EACH ROUTE-AIRCRAFT COMBINATION

1. EVALUATE NUMBER OF PASSENGERS AT FREQUENCY NOW ASSIGNED
2. COMPUTE: REVENUE, COST, EARNINGS
3. EVALUATE CRITERION FUNCTION:
EARNINGS PER PASSENGER USING
SYSTEM MARGINAL EARNINGS

SELECT THAT ONE ROUTE-A/C COMBINATION WHICH
HAS THE HIGHEST VALUE OF CRITERION FUNCTION.

ADD THIS FLT TO THE SYSTEM.
THE SYSTEM NOW HAS ONE
ADDITIONAL FLIGHT. GO BACK
TO FIND THE NEXT BEST
FLIGHT ON THE SYSTEM.

YES

HAVE THE SYSTEM
EARNINGS INCREASED?

NO

GO TO FLOW CHART NUMBER 2
FOR FLIGHT ASSIGNMENTS
PAST MAXIMUM EARNINGS

AIRLINE SYS. HAS REACHED MAX. EARNINGS.
CRITERION FUNCTION IS NOW CHANGED TO
SYSTEM MARGINAL REVENUE DIVIDED BY
SYSTEM MARGINAL COST.

LOCKHEED AIRLINE SYSTEM SIMULATION

FLOW CHART NUMBER 2

FLIGHT ASSIGNMENT AFTER MAX. EARNINGS

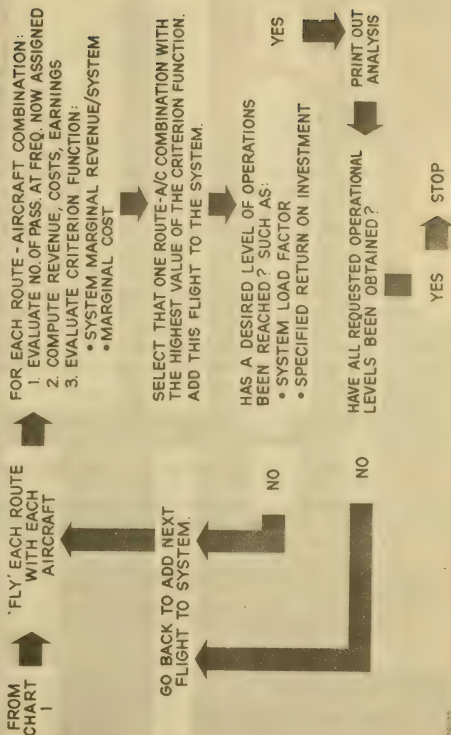


FIGURE 3
MARGINAL COSTS

Flight Crew	Cabin Attendant Salary
Fuel and Oil	and Related Expense
Direct Maintenance	Other Passenger Services
Insurance	Aircraft Handling
Depreciation	Aircraft Control
Local Expense	Landing Fees
Labor - Ground Prop. & Equip.	Passenger Handling
Labor - Other Services	Baggage Handling
Maintenance Materials	Passenger Commissions
Food and Beverages	

The selection and updating process is continued until no flight, either in the form of an added frequency on a route already selected for service or a first flight on a route as yet unserved, can be added to the system and produce an increment of revenue greater than the required increment of marginal cost. Thus, at this point, the system consists only of those services that will produce a maximum operating profit.

An examination of the composition of the system as it would exist at maximum operating profit requires several important observations:

1. No airline presently operates at or near this point;
2. Load factors at this point would be about 80%. Therefore, large numbers of people desiring service during peak periods of the day, week, and season would be unable to travel by air;
3. Many routes that are now being served would receive no service;
4. Many other routes would receive less frequent service than currently provided.

Results of ATA Study

Application of the Model.

The simulation model produces an ordered list of non-stop routes served, starting with the most profitable route/aircraft combination, and adding flights until all profitable flights are listed in decreasing order of profitability. The simulation then continues to list unprofitable flights, starting with the least unprofitable and proceeding to the most unprofitable.

From this listing, it is possible to construct a graph of system earnings versus number of flights (Figure 4), depicting the earnings per day for each level of service. Figure 4 shows that, as more and more unprofitable flights are added to the system, daily earnings and load factors decrease.

Figures 5A, 5B, 5C, and 5D depict the U.S. trunk 48-state system, divided into four subsystems employed in the simulation, and Figure 6 represents the 372 currently served non-stop trunk routes identified by the simulation as unprofitable and consequently risking loss of service in the event of deregulation. These 372 unprofitable routes are tabulated in Exhibit B. Figure 7 sets forth the 826 subsidized regional carrier markets that would also risk loss of service in a deregulated environment.

Thus, in the event of deregulation, routes appearing in Figures 6 and 7 can be considered as prime candidates for abandonment. Not included are other unprofitable markets currently served by regional carriers and not eligible for subsidy.

Exhibit C presents the unprofitable and subsidized routes on a state-by-state basis.

Exhibit D lists all profitable routes in the trunk system, showing the reduced level of service that might be experienced with a maximum earnings objective.

Effect of Fare Reductions

In addition to consideration of the system under 1973 fare levels, the analysis was extended to explore conditions where these levels were reduced 10 and 20%.

Results of running those two hypothetical cases are shown in Figure 8. The upper curve is identical to Figure 4, indicating the results of 1973 operation at 1973 yields. Other curves show the results which could have been expected in 1973 if fares had been reduced 10% and 20%, respectively.

Figure 9 demonstrates these results in tabular form -- as fares decrease, the maximum earnings and number of profitable flights are lower. Further, if fares were reduced 10%, there would be an increase in the number of unprofitable routes from 372 to 471. In the case of 20% fare reduction, unprofitable routes rise from 372 to 564.

FIGURE 4

SYSTEM EARNINGS VS. FLIGHTS
48 STATE U.S. TRUNK AIRLINE SIMULATION

1973

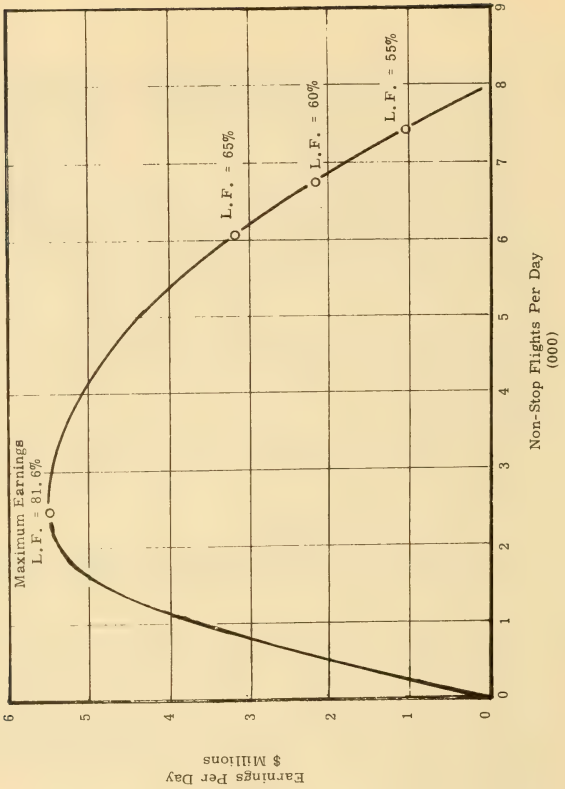


Figure 5A

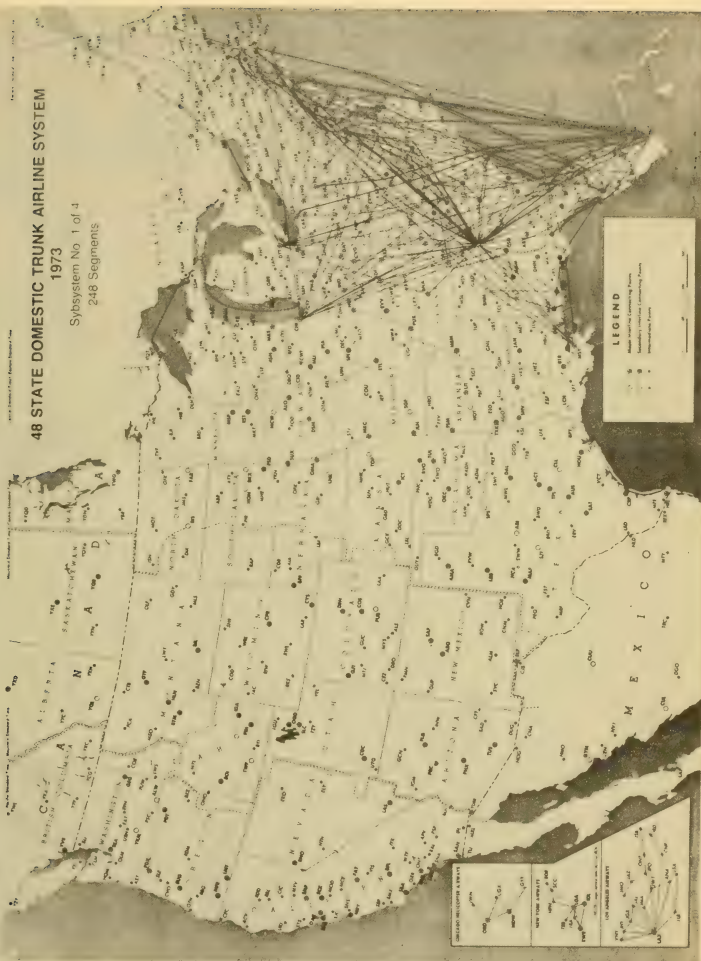


Figure 5B

48 STATE DOMESTIC TRUNK AIRLINE SYSTEM

1973

Subsystem No. 2 of 4
250 Segments

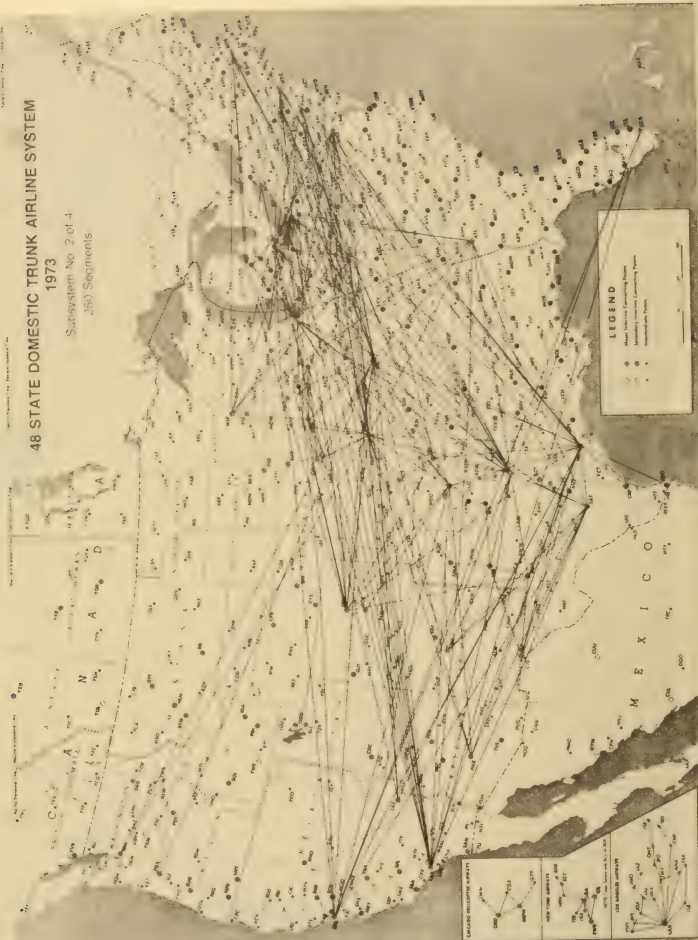


Figure 5C

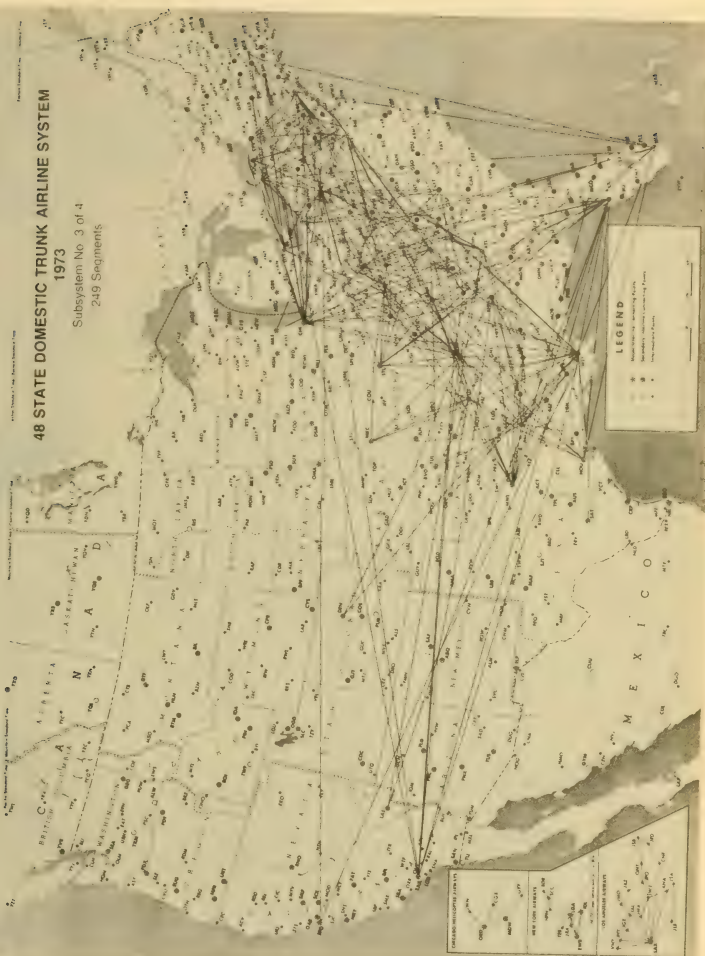


Figure 5D

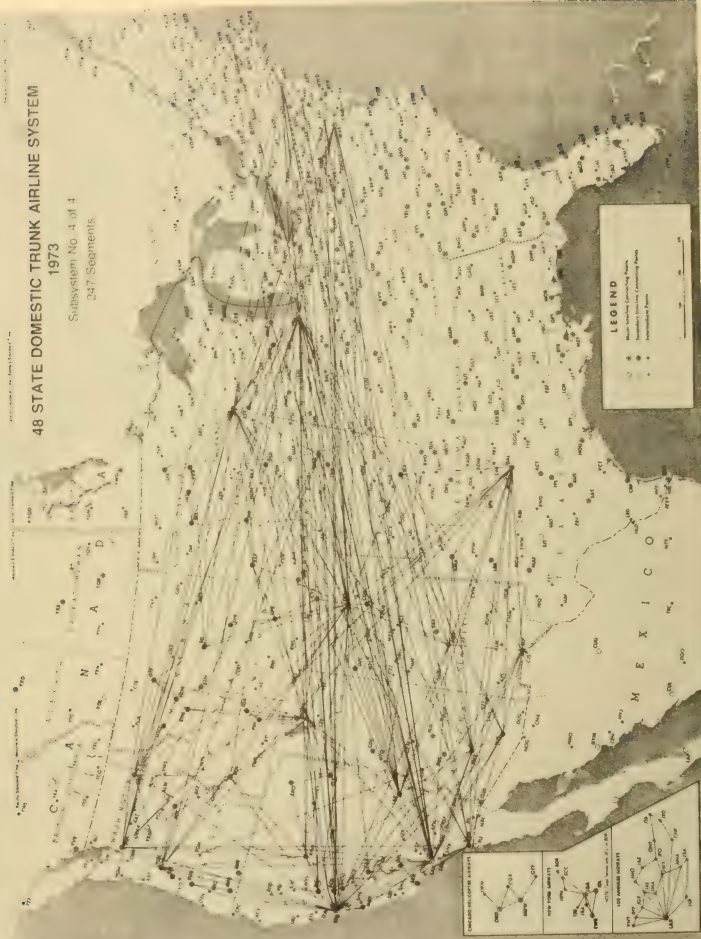


Figure 6

UNPROFITABLE FLIGHT SEGMENTS 48 STATE DOMESTIC TRUNK AIRLINE SYSTEM 1973

372 Segments

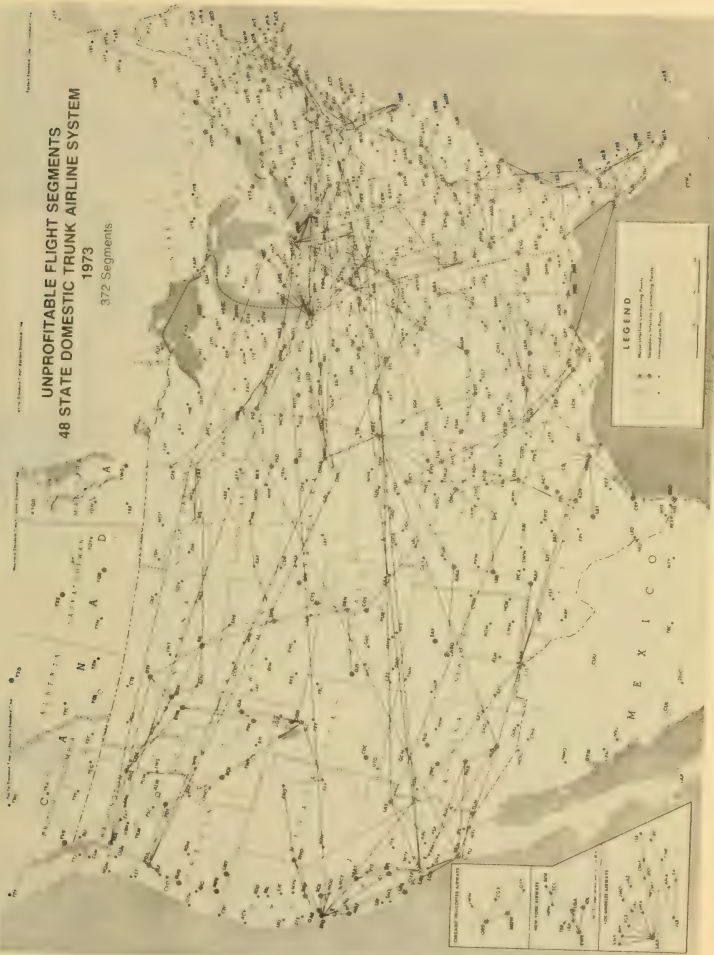


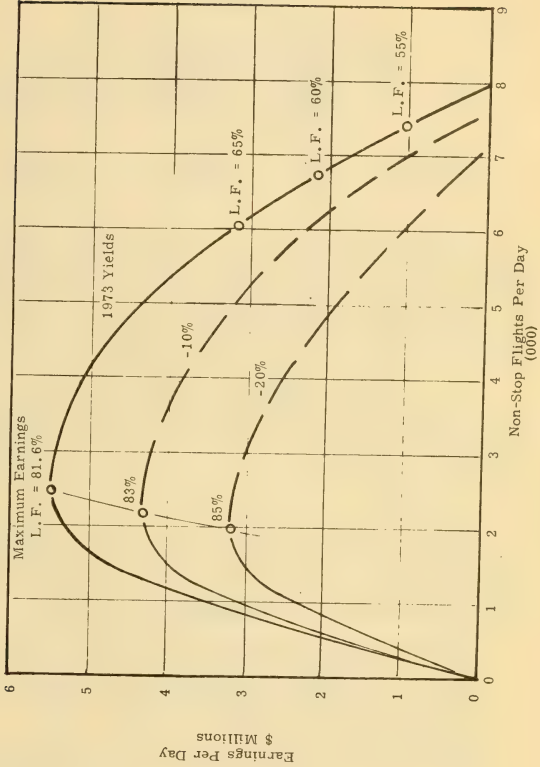
Figure 7



FIGURE 8

SYSTEM EARNINGS VS. FLIGHTS
48 STATE U.S. TRUNK AIRLINE SIMULATION

At 1973 Fare Levels and Reductions of 10% and 20%



Note: Curves for -10% and -20% assume the CAB elasticity factor of -1.2 used for discount fares.
Overall CAB elasticity is -0.7.

FIGURE 9

SOME EFFECTS OF REDUCED FARES

<u>Yields</u>	Maximum Daily <u>Earnings</u> (Millions)	Number of Profitable <u>Flights</u>	Number of Unprofitable <u>Non-Stop Routes</u>
1973 Yields	\$5.5	2,500	372
10% Reduction	4.3	2,170	471
20% Reduction	3.1	1,978	564

In making these simulation runs, it was assumed that elasticity of demand was -1.2. This figure is the assumption for discount fares only adopted by the Civil Aeronautics Board in its computation of the adjusted return on investment. The CAB elasticity factor for all fares, however, was -0.7. For purposes of this analysis only, to test the hypothesis that a disproportionate increase in demand would still reduce service, it is assumed that a 10% decrease in fares would result in a 13% increase in demand, and a 20% decrease would result in a 31% increase in demand.*

The results of examining the system at 10% and 20% yield reduction show that lowering of fares, for example, by new competitors free of regulatory restraint, would increasingly result in economic pressures to abandon unprofitable routes. Further, the number of candidates for discontinuation of service increases as fares decrease.

Load Factors

It should be emphasized that the ATA study demonstrates that achievement of high load factors is not necessarily consistent with a high level of service to communities across the nation. For example, two ways of achieving higher system load factors would be to remove service to those communities with the lowest load factors and/or abandon unprofitable routes.

- Abandonment of lowest load factor flights. In order to determine the impact of this method of raising system load factors from 55% to 60%, ATA arrayed all flights for August, 1973, from lowest to highest load factors, using segment data (ER-586) for trunk and local service airlines. Figure 10 is a summary of these data.

System load factor for that month was 55.7%. In order to raise the system load factor to 60%, it would have been necessary to eliminate 144,000 flights during the month, or 37% of all flights (Figure 11).

* This uses the CAB calculation of elasticity impact.

FIGURE 10

FLIGHT/SEGMENT LOAD FACTOR DISTRIBUTION
U. S. CERTIFICATED AIRLINES
48 STATE SERVICES
AUGUST, 1973

CUMULATIVE DISTRIBUTIONS						
Segment Load Factor %	No. of Flights	% Of Flights	Segment Load Factor %	No. of Flights	% Of Flights	No. of Flights
95-100	104	0.03	95	104	.03	389,314
90-94.9	959	0.2	90	1,065	.3	389,210
85-89.9	3,199	0.8	85	4,262	1.1	388,251
80-84.9	5,504	1.4	80	9,766	2.5	385,052
75-79.9	9,899	2.5	75	19,665	5.1	379,548
70-74.9	17,498	4.5	70	37,163	9.6	369,649
65-69.9	30,105	7.7	65	67,268	17.3	352,151
60-64.9	48,682	12.5	60	115,950	29.8	322,046
55-59.9	58,399	15.0	55	174,349	44.8	273,364
50-54.9	62,348	16.0	50	236,697	60.8	214,965
45-49.9	43,491	11.2	45	288,188	72.0	152,617
40-44.9	31,356	8.1	40	311,544	80.0	109,126
35-39.9	27,514	7.1	35	339,058	87.1	77,770
30-34.9	21,534	5.5	30	360,592	92.6	50,256
25-29.9	12,116	3.1	25	372,708	95.8	28,722
20-24.9	6,922	1.8	20	379,630	97.5	7,4
15-19.9	4,770	1.2	15	384,400	98.8	16,606
10-14.9	2,368	0.6	10	386,768	99.4	9,684
5-9.9	2,163	0.6	5	388,931	99.9	4,914
0-4.9	383	0.1	0	389,314	100.0	2,546
						383

Notes: (1) Average load factor for the segment is used for each flight flown on that segment.

(2) Segments with less than four services per month not included.

FIGURE 11

ANALYSIS OF FLIGHT/SEGMENT LOAD FACTORS

U.S. Certificated Airlines

48 State Services

August, 1973

Number of Flights Requiring Elimination From Lowest Load
Factors to Raise System Average From 55.7% to:

	Number of <u>Flights</u>	Percent of All <u>Flights</u>	Highest Load Factor <u>Remaining</u>
60%	144,000	37.0	49.3%
65%	226,000	58.1	56.0%
70%	296,000	76.1	62.2%
75%	340,000	87.3	67.5%
80%	365,000	93.7	73.2%

Notes: (1) Average load factor for the segment is used for
each flight flown on that segment.

(2) Segments with less than four services per month
not included.

The remaining system would exclude flights for which the average monthly load factor was 49.3% or less. To raise the system load factor to 65%, a total of 226,000 flights (or 58.1% of all flights) would have had to be eliminated. At 65% load factor, flights with average monthly load factor of 56% or lower would be eliminated.

These data do not take into account the fact that some of the traffic on discontinued flights would be diverted to other flights. Some segments, however, would lose all service.

An illustration of a typical monthly distribution of load factors is shown in Figure 12, using the August, 1973 data.

- Abandonment of the most unprofitable flights. Use of the Lockheed Airline System Simulation makes it possible to determine the impact of raising load factors by eliminating the most unprofitable flights. If trunk airlines were to pursue this policy alternative, approximately 20,000 monthly flights, or 9% of total trunk service, would be abandoned in order to raise load factors to 60%. 41,000 monthly flights would be eliminated to reach a 65% load factor.

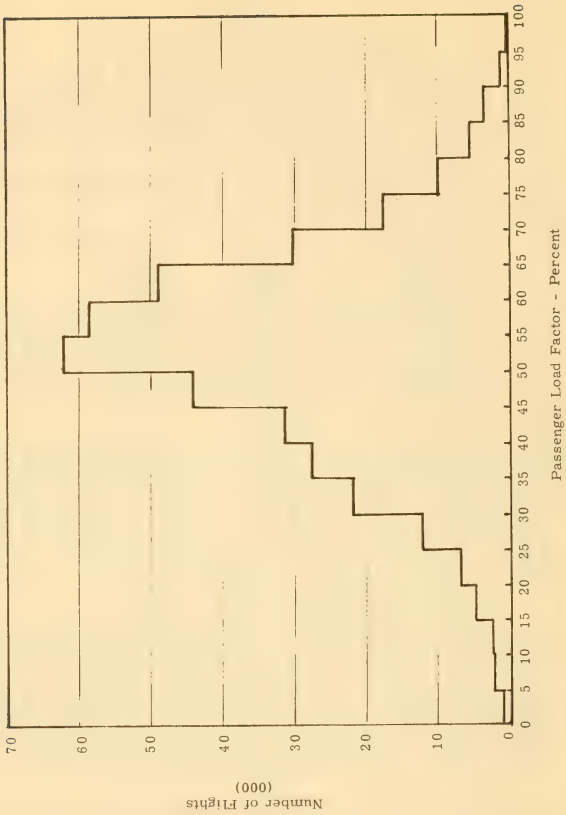
A significant consideration with respect to the impact of high average load factors on public service is the problem of unserved demand. Experience with airline reservations systems makes it clear that some passengers cannot obtain confirmed reservations on flights that finally depart with 80% load factors. This phenomenon results from the practice of passengers booking reservations and failing to cancel if the reservations are not used. In this case other passengers will have been turned down because the flight appeared to be fully booked. During peak vacation periods, this situation is particularly acute.

Previous analysis has shown that increasing average load factors would result in curtailment of service. But average load factors do not fully account for the extent to which the public is inconvenienced. Examination of actual monthly flight load factor data, in a special ATA study, shows that, even with average route load factors as low as 40%, many individual flights on these routes carry load factors in the 70 to 90% range. This means that, at certain times of the day and on certain days of the week, hundreds of passengers are turned away on flights of their choice even though, on the average for the month, 60% of the seats in the system are empty. Demand is highly peaked by hour of the day, by day of the week, by season, and by direction.

These findings demonstrate that passengers must forego travel or change their plans to travel at less convenient times even when load factors are at a system average of 55%.

FIGURE 12
 FLIGHT/SEGMENT LOAD FACTOR DISTRIBUTION
 U.S. Certified Airlines
 48 State Services

August, 1973



Note: (1) Average load factor for the segment is used for each flight flown on that segment.
 (2) Segments with less than four services per month not included.

Conclusions

Currently U.S. scheduled trunk and regional carriers serve 3,087 non-stop routes which link 58,000 city pairs throughout the U.S. Of these, 1,158 (or 37.5%) are unprofitable and risk abandonment under deregulation. Nearly all of the remaining 1,929 routes might well experience significant reduction in service.

Where certain of the unprofitable or subsidized routes might be held for such purposes as providing feeder traffic, aircraft positioning, or market growth, or might be served by smaller commuter airlines, these routes could be subject to instability not present today, since carriers would be competing for them as marginal routes and would move in and out as current circumstances dictated.

Attempting to subsidize these routes, to try to maintain today's level of service, could require as much as a billion dollars.

Further, raising average system load factors has a public service penalty attached to it. Most particularly, this occurs with an increase in denied service during certain daily, weekly, and monthly peak periods.

Accordingly, as this study demonstrates, under a deregulated system the level of service available to the public could be markedly reduced.

Question No. 2
From the Subcommittee Chairman

"It may be that the 'feeder' line argument you made in your testimony amounts to more than a simple cross subsidy argument. If so, will you please explain it more fully and provide empirical support?"

As the question implies, the concept of cross subsidization* appears simple at first glance. In practice it is complex, and the variety of attitudes, beliefs, and opinions on the subject reflected in the testimony before the Subcommittee amply demonstrate that complexity.

The single essential point that must be understood is that a form of cross subsidy begins when a system exists with only one non-stop route. Costs of operating a route vary by time of day, season of the year, weather conditions, and by many other factors. Thus, to completely eliminate the effect of cross subsidization is not possible on one non-stop route in each system, let alone on an entire system.

The efficient deployment of aircraft and other airline resources across the national air transportation network requires their use on a combination of non-stop, multi-segment, and connecting routes where the optimum application of resources is normally not possible. For example, an aircraft can seldom be operated on the optimum distance for which it was designed. When it is, however, per mile costs are less than on its other routes, and a form of cross subsidy occurs.

As ATA reported in its February 6 testimony before the Subcommittee, the national air transportation system is comprised of many connecting and through flights, constituting a network of service throughout the 58,000 city pairs served by scheduled airlines. These connecting and one-stop and multi-stop flights exist in part because segments (connecting or through) that may be individually unprofitable can be combined to make a total profitable flight. Consider three cities -- A, B, and C -- and suppose that traffic between each of the three pairs (AB, BC, AC) is too light to justify even a single daily flight. If, however, one flight is operated from A to B to C, the segment from A to B may still be unprofitable but the segment from B to C, bolstered by traffic from A destined for C, may now be profitable enough to make the flight as a whole profitable. In such a situation, it could be said that passengers destined from B to C subsidize passengers destined from A to B. But what about passengers destined from A to C? They are "recipients" on one segment (A to B) and "donors" on the other (B to C).

* Sometimes viewed as "internal subsidization".

Availability of a high degree of scheduled frequency to communities, large, medium, and small in terms of population across the nation, is unparalleled in the world. The operation of this network, however, requires a high percentage of multi-stop and connecting flights. Approximately 70% of scheduled carrier operations involves multi-stop flights.

Every passenger or shipper using the comprehensive, integrated system receives a clear economic benefit flowing from that system -- the ability of anyone to get almost anywhere in the country on a regularly scheduled basis, on business, on personal emergency, or for any other reason.

The effect of cross subsidy, therefore, is to render operable an essentially self-supporting, comprehensive, integrated national air transportation system. Without it, that system would disintegrate. If the many smaller or medium sized communities now receiving service through connecting or through flight feeder operations are to receive adequate service, absent the present self-supporting system self-financed by cross subsidy, large direct subsidies would be required in order to provide service at the levels now available.

Question No. 3
From the Subcommittee Chairman

"It has been argued that a competitive airline system (of the sort DOT suggested) would be a less safe system. If you hold this view, would you please provide documentary support for it?"

The impact of deregulation on safety is not susceptible to ready measurement and one cannot predict with certainty what that impact might be.

In light of the consequences of the operation of a less stable air transport industry resulting from deregulation and related shifts in service patterns, one must presume that the Federal Aviation Administration would continue to take all actions necessary in the public interest to assure the highest possible level of safety for all operations within its statutory jurisdiction.

EXHIBIT A

INDIRECT COST FACTOR DERIVATION
(INCLUDING DESIGNATION OF MARGINAL COST ELEMENTS)

EXHIBIT B

U.S. SCHEDULED AIRLINE
1973 ROUTES (CITY-PAIRS) RISKING
LOSS OF SERVICE AS A
CONSEQUENCE OF DEREGULATION
(IN ORDER FROM THE LEAST TO
THE MOST UNPROFITABLE)

1.	ATL-CAE	Atlanta, Ga.	Columbia, S.C.
2.	MCO-MIA	Orlando, Fla.	Miami, Fla.
3.	JAN-MSY	Jackson/Vicksburg, Miss.	New Orleans, La.
4.	PBI-TPA	West Palm Beach, Fla.	Tampa, Fla.
5.	DSM-STL	Des Moines, Iowa	St. Louis, Mo.
6.	ABE-CLE	Allentown, Pa.	Cleveland, Ohio
7.	GFK-MSP	Grand Forks, N.D.	Minneapolis/St. Paul, Minn.
8.	PHF-WAS	Newport News, Va.	Washington, D.C.
9.	CHS-JAX	Charleston, S.C.	Jacksonville, Fla.
10.	CMH-PIT	Columbus, Ohio	Pittsburgh, Pa.
11.	BAL-NYC	Baltimore, Md.	New York, N.Y.
12.	BOI-SLC	Boise, Id.	Salt Lake City, Utah
13.	DAL-IAH	Dallas/Ft. Worth, Tex.	Houston, Tex.
14.	JAX-TPA	Jacksonville, Fla.	Tampa, Fla.
15.	ABE-WAS	Allentown, Pa.	Washington, D.C.
16.	ATL-TYS	Atlanta, Ga.	Knoxville, Tenn.
17.	DAL-SAT	Dallas/Ft. Worth, Tex.	San Antonio, Tex.
18.	BNA-TYS	Nashville, Tenn.	Knoxville, Tenn.
19.	CLE-CVG	Cleveland, Ohio	Cincinnati, Ohio
20.	DTW-MKE	Detroit, Mich. (Metropolitan)	Milwaukee, Wis.
21.	CRW-CVG	Charleston, W.Va.	Cincinnati, Ohio
22.	CRW-PIT	Charleston, W.Va.	Pittsburgh, Pa.
23.	LEX-TYS	Lexington, Ky.	Knoxville, Tenn.
24.	ATL-AVL	Atlanta, Ga.	Asheville, N.C.
25.	EVV-STL	Evansville, Ind.	St. Louis, Mo.
26.	CHS-CLT	Charleston, S.C.	Charlotte, N.C.
27.	MCI-STL	Kansas City, Mo.	St. Louis, Mo.
28.	PHX-SAN	Phoenix, Ariz.	San Diego, Calif.
29.	CMH-DTW	Columbus, Ohio	Detroit, Mich. (Metropolitan)
30.	ALB-NYC	Albany, N.Y.	New York, N.Y.
31.	LIT-MEM	Little Rock, Ark.	Memphis, Tenn.
32.	ORD-STL	Chicago, Ill. (O'Hare)	St. Louis, Mo.
33.	IND-STL	Indianapolis, Ind.	St. Louis, Mo.
34.	DTW-IND	Detroit, Mich. (Metropolitan)	Indianapolis, Ind.
35.	DSM-MSP	Des Moines, Iowa	Minneapolis/St. Paul, Minn.
36.	MCO-PBI	Orlando, Fla.	West Palm Beach, Fla.
37.	CLE-SBN	Cleveland, Ohio	South Bend, Ind.
38.	ORF-WAS	Norfolk, Va.	Washington, D.C.
39.	DTW-ORD	Detroit, Mich. (Metropolitan)	Chicago, Ill. (O'Hare)
40.	EVV-IND	Evansville, Ind.	Indianapolis, Ind.

41.	DAL-TUL	Dallas/Ft. Worth, Tex.	Tulsa, Okla.
42.	CLE-IND	Cleveland, Ohio	Indianapolis, Ind.
43.	BUF-SYR	Buffalo, N.Y.	Syracuse, N.Y.
44.	AGS-ATL	Augusta, Ga.	Atlanta, Ga.
45.	CVG-ORD	Cincinnati, Ohio	Chicago, Ill. (O'Hare)
46.	NYC-PVD	New York, N.Y.	Providence, R.I.
47.	IND-ORD	Indianapolis, Ind.	Chicago, Ill. (O'Hare)
48.	ATL-MGM	Atlanta, Ga.	Montgomery, Ala.
49.	DAY-ORD	Dayton, Ohio	Chicago, Ill. (O'Hare)
50.	GEG-GTF	Spokane, Wash.	Great Falls, Mont.
51.	NYC-ORH	New York, N.Y.	Worcester, Mass.
52.	BOI-GEG	Boise, Id.	Spokane, Wash.
53.	MCI-TUL	Kansas City, Mo.	Tulsa, Okla.
54.	MCI-SGF	Kansas City, Mo.	Springfield, Mo.
55.	CLE-GRR	Cleveland, Ohio	Grand Rapids, Mich.
56.	IND-SDF	Indianapolis, Ind.	Louisville, Ky.
57.	PHL-WAS	Philadelphia, Pa.	Washington, D.C.
58.	ATL-GSP	Atlanta, Ga.	Greenville/Spartanburg, S.C.
59.	IAH-SAT	Houston, Tex.	San Antonio, Tex.
60.	FSM-LIT	Ft. Smith, Ark.	Little Rock, Ark.
61.	JAN-MLU	Jackson/Vicksburg, Miss.	Monroe, La.
62.	MIA-MLB	Miami, Fla.	Melbourne, Fla.
63.	MBS-ORD	Saginaw, Mich.	Chicago, Ill. (O'Hare)
64.	JAX-TLH	Jacksonville, Fla.	Tallahassee, Fla.
65.	CVG-SDF	Cincinnati, Ohio	Louisville, Ky.
66.	CLT-RDU	Charlotte, N.C.	Raleigh/Durham, N.C.
67.	DAY-DTW	Dayton, Ohio	Detroit, Mich. (Metropolitan)
68.	CID-ORD	Cedar Rapids/Iowa City, Ia.	Chicago, Ill. (O'Hare)
69.	MOB-MSY	Mobile, Ala.	New Orleans, La.
70.	ATL-BHM	Atlanta, Ga.	Birmingham, Ala.
71.	SBA-SFO	Santa Barbara, Calif.	San Francisco, Calif.
72.	RDU-RIC	Raleigh/Durham, N.C.	Richmond, Va.
73.	CLE-FWA	Cleveland, Ohio	Ft. Wayne, Ind.
74.	BNA-SDF	Nashville, Tenn.	Louisville, Ky.
75.	MLI-OMA	Moline, Ill.	Omaha, Neb.
76.	DAL-OKC	Dallas/Ft. Worth, Tex.	Oklahoma City, Okla.
77.	BAL-RDU	Baltimore, Md.	Raleigh/Durham, N.C.
78.	ELP-TUS	El Paso, Texas	Tucson, Ariz.
79.	JAX-MCO	Jacksonville, Fla.	Orlando, Fla.
80.	AUS-DAL	Austin, Tex.	Dallas/Ft. Worth, Tex.

81.	ICT-MCI	Wichita, Kan.	Kansas City, Mo.
82.	ORD-TOL	Chicago, Ill. (O'Hare)	Toledo, Ohio
83.	FLL-MCO	Ft. Lauderdale, Fla.	Orlando, Fla.
84.	CLE-PIT	Cleveland, Ohio	Pittsburgh, Pa.
85.	ESF-SHV	Alexandria, La.	Shreveport, La.
86.	FNT-ORD	Flint, Mich.	Chicago, Ill. (O'Hare)
87.	BAL-BDL	Baltimore, Md.	Hartford, Conn.
88.	CLE-DAY	Cleveland, Ohio	Dayton, Ohio
89.	MCI-OMA	Kansas City, Mo.	Omaha, Neb.
90.	LAS-SAN	Las Vegas, Nev.	San Diego, Calif.
91.	PFN-PNS	Panama City, Fla.	Pensacola, Fla.
92.	CRP-DEN	Casper, Wyo.	Denver, Colo.
93.	PHX-PSP	Phoenix, Ariz.	Palm Springs, Calif.
94.	JAX-SAV	Jacksonville, Fla.	Savannah, Ga.
95.	RIC-WAS	Richmond, Va.	Washington, D.C.
96.	DAL-MLU	Dallas/Ft. Worth, Tex.	Monroe, La.
97.	CRP-IAH	Corpus Christi, Tex.	Houston, Tex.
98.	FSM-TUL	Ft. Smith, Ark.	Tulsa, Okla.
99.	PIT-ROA	Pittsburgh, Pa.	Roanoke, Va.
100.	CAE-CHS	Columbia, S.C.	Charleston, S.C.
101.	CMH-TOL	Columbus, Ohio	Toledo, Ohio
102.	MLI-ORD	Moline, Ill.	Chicago, Ill. (O'Hare)
103.	BOS-PWM	Boston, Mass.	Portland, Maine
104.	FMY-MIA	Fort Myers, Fla.	Miami, Fla.
105.	DSM-MCI	Des Moines, Iowa	Kansas City, Mo.
106.	LAS-LAX	Las Vegas, Nev.	Los Angeles, Calif.
107.	AUS-IAH	Austin, Tex.	Houston, Tex.
108.	DAB-JAX	Daytona Beach, Fla.	Jacksonville, Fla.
109.	FAT-LAX	Fresno, Calif.	Los Angeles, Calif.
110.	MLU-SHV	Monroe, La.	Shreveport, La.
111.	CMH-IND	Columbus, Ohio	Indianapolis, Ind.
112.	LAN-ORD	Lansing, Mich.	Chicago, Ill. (O'Hare)
113.	MLB-TPA	Melbourne, Fla.	Tampa, Fla.
114.	FMY-TPA	Fort Myers, Fla.	Tampa, Fla.
115.	BNA-STL	Nashville, Tenn.	St. Louis, Mo.
116.	CLE-MBS	Cleveland, Ohio	Saginaw, Mich.
117.	EVV-SDF	Evansville, Ind.	Louisville, Ky.
118.	EEN-NYC	Keene, N.H.	New York, N.Y.
119.	ATL-CHA	Atlanta, Ga.	Chattanooga, Tenn.
120.	BDL-NYC	Hartford, Conn.	New York, N.Y.

121.	BOS-BTV	Boston, Mass.	Burlington, Vt.
122.	ICT-OKC	Wichita, Kan.	Oklahoma City, Okla.
123.	BFL-SFO	Bakersfield, Calif.	San Francisco, Calif.
124.	MEM-PAH	Memphis, Tenn.	Paducah, Ky.
125.	AMA-ICT	Amarillo, Tex.	Wichita, Kan.
126.	DAL-ICT	Dallas/Ft. Worth, Tex.	Wichita, Kan.
127.	GEG-SEA	Spokane, Wash.	Seattle, Wash.
128.	LIT-SGF	Little Rock, Ark.	Springfield, Mo.
129.	ABQ-ELP	Albuquerque, N.M.	El Paso, Tex.
130.	FAR-MSP	Fargo, N.D.	Minneapolis/St. Paul, Minn.
131.	FWA-ORD	Ft. Wayne, Ind.	Chicago, Ill. (O'Hare)
132.	FSD-MSP	Sioux Falls, S.D.	Minneapolis/St. Paul, Minn.
133.	DEN-GJT	Denver, Colo.	Grand Junction, Colo.
134.	MSN-MSP	Madison, Wis.	Minneapolis/St. Paul, Minn.
135.	CLE-LAN	Cleveland, Ohio	Lansing, Mich.
136.	GSO-RIC	Greensboro/High Point, N.C.	Richmond, Va.
137.	ICT-TUL	Wichita, Kan.	Tulsa, Okla.
138.	BAL-PHF	Baltimore, Md.	Newport News, Va.
139.	CLE-FNT	Cleveland, Ohio	Flint, Mich.
140.	BAL-ORF	Baltimore, Md.	Norfolk, Va.
141.	BPT-SHV	Beaumont/Port Arthur, Tex.	Shreveport, La.
142.	GRR-ORD	Grand Rapids, Mich.	Chicago, Ill. (O'Hare)
143.	AVL-CRW	Asheville, N.C.	Charleston, W.Va.
144.	OKC-TUL	Oklahoma City, Okla.	Tulsa, Okla.
145.	ABQ-AMA	Albuquerque, N.M.	Amarillo, Tex.
146.	CLE-CMH	Cleveland, Ohio	Columbus, Ohio
147.	ROC-SYR	Rochester, N.Y.	Syracuse, N.Y.
148.	FAT-SFO	Fresno, Calif.	San Francisco, Calif.
149.	RNO-SFO	Reno, Nev.	San Francisco, Calif.
150.	CHA-TYS	Chattanooga, Tenn.	Knoxville, Tenn.
151.	BTR-SHV	Baton Rouge, La.	Shreveport, La.
152.	LBB-MAF	Lubbock, Tex.	Midland/Odessa, Tex.
153.	FSD-PIR	Sioux Falls, S.D.	Pierre, S.D.
154.	BTR-ESF	Baton Rouge, La.	Alexandria, La.
155.	ELP-MAF	El Paso, Tex.	Midland/Odessa, Tex.
156.	GEG-MSO	Spokane, Wash.	Missoula, Mont.
157.	BHM-PNS	Birmingham, Ala.	Pensacola, Fla.
158.	DAY-IND	Dayton, Ohio	Indianapolis, Ind.
159.	BGR-PWM	Bangor, Me.	Portland, Me.
160.	FSM-SHV	Ft. Smith, Ark.	Shreveport, La.

161.	CLE-DTW	Cleveland, Ohio	Detroit, Mich. (Metropolitan)
162.	CVG-MSP	Cincinnati, Ohio	Minneapolis/St. Paul, Minn.
163.	CLT-GSP	Charlotte, N.C.	Greenville/Spartanburg, S.C.
164.	BIL-GTF	Billings, Mont.	Great Falls, Mont.
165.	CAK-YNG	Akron/Canton, Ohio	Youngstown, Ohio
166.	ATL-MCN	Atlanta, Ga.	Macon, Ga.
167.	CVG-IND	Cincinnati, Ohio	Indianapolis, Ind.
168.	CMH-CVG	Columbus, Ohio	Cincinnati, Ohio
169.	CHA-CVG	Chattanooga, Tenn.	Cincinnati, Ohio
170.	MCO-TPA	Orlando, Fla.	Tampa, Fla.
171.	PFN-TLH	Panama City, Fla.	Tallahassee, Fla.
172.	AGS-CLT	Augusta, Ga.	Charlotte, N.C.
173.	BTR-MSY	Baton Rouge, La.	New Orleans, La.
174.	MKG-ORD	Muskegon, Mich.	Chicago, Ill. (O'Hare)
175.	PDT-PDX	Pendleton, Ore.	Portland, Ore.
176.	BOI-PDT	Boise, Id.	Pendleton, Ore.
177.	PIH-SLC	Pocatello, Id.	Salt Lake City, Utah
178.	ATL-CSG	Atlanta, Ga.	Columbus, Ga.
179.	CLE-TOL	Cleveland, Ohio	Toledo, Ohio
180.	FWA-IND	Ft. Wayne, Ind.	Indianapolis, Ind.
181.	CLT-GSO	Charlotte, N.C.	Greensboro/High Point, N.C.
182.	AVP-WAS	Wilkes-Barre/Scranton, Pa.	Washington, D.C.
183.	AMA-LBB	Amarillo, Texas	Lubbock, Texas
184.	PBI-TLH	West Palm Beach, Fla.	Tallahassee, Fla.
185.	IDA-SLC	Idaho Falls, Id.	Salt Lake City, Utah
186.	CHS-SAV	Charleston, S.C.	Savannah, Ga.
187.	CRP-RAP	Casper, Wyo.	Rapid City, S.D.
188.	CVG-LEX	Cincinnati, Ohio	Lexington, Ky.
189.	CLE-CRW	Cleveland, Ohio	Charleston, W. Va.
190.	CAK-PIT	Akron/Canton, Ohio	Pittsburgh, Pa.
191.	JMS-MSP	Jamestown, N.D.	Minneapolis/St. Paul, Minn.
192.	CAE-CLT	Columbia, S.C.	Charlotte, N.C.
193.	BIL-BZN	Billings, Mont.	Bozeman, Mont.
194.	DSM-OMA	Des Moines, Iowa	Omaha, Neb.
195.	PDX-SEA	Portland, Ore.	Seattle, Wash.
196.	BAL-PHL	Baltimore, Md.	Philadelphia, Pa.
197.	LEX-SDF	Lexington, Ky.	Louisville, Ky.
198.	BDL-BOS	Hartford, Conn.	Boston, Mass.
199.	BIL-CRP	Billings, Mont.	Casper, Wyo.
200.	NYC-PHL	New York, N.Y.	Philadelphia, Pa.

201.	BIL-HLN	Billings, Mont.	Helena, Mont.
202.	BTM-IDA	Butte, Mont.	Idaho Falls, Id.
203.	GSO-ROA	Greensboro/High Point, N.C.	Roanoke, Va.
204.	MIA-PBI	Miami, Fla.	West Palm Beach, Fla.
205.	PIR-RAP	Pierre, S.D.	Rapid City, S.D.
206.	MOB-PNS	Mobile, Ala.	Pensacola, Fla.
207.	PHX-TUS	Phoenix, Ariz.	Tucson, Ariz.
208.	MSN-ORD	Madison, Wis.	Chicago, Ill. (O'Hare)
209.	BFL-LAX	Bakersfield, Calif.	Los Angeles, Calif.
210.	CID-OMA	Cedar Rapids/Iowa City, Ia.	Omaha, Neb.
211.	FLL-PBI	Ft. Lauderdale, Fla.	West Palm Beach, Fla.
212.	DTW/FWA	Detroit, Mich. (Metropolitan)	Ft. Wayne, Ind.
213.	BDL-PVD	Hartford, Conn.	Providence, R.I.
214.	GSO-RDU	Greensboro/High Point, N.C.	Raleigh/Durham, N.C.
215.	MSN-RST	Madison, Wis.	Rochester, Minn.
216.	FMY-SRQ	Fort Myers, Fla.	Sarasota, Fla.
217.	AGS-CAE	Augusta, Ga.	Columbia, S.C.
218.	PSP-TUS	Palm Springs, Calif.	Tucson, Ariz.
219.	CSG-MGM	Columbus, Ga.	Montgomery, Ala.
220.	LAX-SBA	Los Angeles, Calif.	Santa Barbara, Calif.
221.	CYS-DEN	Cheyenne, Wyo.	Denver, Colo.
222.	ELP-SFO	El Paso, Tex.	San Francisco, Calif.
223.	BIS-FAR	Bismarck, N.D.	Fargo, N.D.
224.	SAN-SFO	San Diego, Calif.	San Francisco, Calif.
225.	EUG-PDX	Eugene, Ore.	Portland, Ore.
226.	DAB-TPA	Daytona Beach, Fla.	Tampa, Fla.
227.	LAX-SAN	Los Angeles, Calif.	San Diego, Calif.
228.	ORD-SBN	Chicago, Ill.	South Bend, Ind.
229.	LAX-PSP	Los Angeles, Calif.	Palm Springs, Calif.
230.	PDX-STL	Portland, Ore.	St. Louis, Mo.
231.	AVL-RDU	Asheville, N.C.	Raleigh/Durham, N.C.
232.	RNO-SMF	Reno, Nev.	Sacramento, Calif.
233.	EUG-MFR	Eugene, Ore.	Medford, Ore.
234.	DAY-LAX	Dayton, Ohio	Los Angeles, Calif.
235.	CHA-LEX	Chattanooga, Tenn.	Lexington, Ky.
236.	CRP-CYS	Casper, Wyo.	Cheyenne, Wyo.
237.	CID-DSM	Cedar Rapids/Iowa City, Ia.	Des Moines, Ia.
238.	LAX-VIS	Los Angeles, Calif.	Visalia, Calif.
239.	COS-OKC	Colorado Springs, Colo.	Oklahoma City, Okla.
240.	JAN-MEI	Jackson/Vicksburg, Miss.	Meridian, Miss.

241.	SHV-TUL	Shreveport, La.	Tulsa, Okla.
242.	BHM-BNA	Birmingham, Ala.	Nashville, Tenn.
243.	HLN-MSO	Helena, Mont.	Missoula, Mont.
244.	EVV-PAH	Evansville, Ind.	Paducah, Ky.
245.	CVG-LAX	Cincinnati, Ohio	Los Angeles, Calif.
246.	PIT-YNG	Pittsburgh, Pa.	Youngstown, Ohio
247.	BUF-ROC	Buffalo, N.Y.	Rochester, N.Y.
248.	CID-MLI	Cedar Rapids/Iowa City, Ia.	Moline, Ill.
249.	BAL-LAS	Baltimore, Md.	Las Vegas, Nev.
250.	CMH-DAY	Columbus, Ohio	Dayton, Ohio
251.	BTM-SLC	Butte, Mont.	Salt Lake City, Utah
252.	MKE-MSN	Milwaukee, Wis.	Madison, Wis.
253.	MRY-SFO	Monterey, Calif.	San Francisco, Calif.
254.	LAW-OKC	Lawton, Okla.	Oklahoma City, Okla.
255.	MSP-RST	Minneapolis/St. Paul, Minn.	Rochester, Minn.
256.	BTM-GEG	Butte, Mont.	Spokane, Wash.
257.	AVL-TYS	Asheville, N.C.	Knoxville, Tenn.
258.	NYC-TUL	New York, N.Y.	Tulsa, Okla.
259.	SFO-SMF	San Francisco, Calif.	Sacramento, Calif.
260.	AGS-SAV	Augusta, Ga.	Savannah, Ga.
261.	SEA-WAS	Seattle, Wash.	Washington, D.C.
262.	SAN-TUS	San Diego, Calif.	Tucson, Ariz.
263.	FWA-SBN	Ft. Wayne, Ind.	South Bend, Ind.
264.	LBB-SPS	Lubbock, Tex.	Wichita Falls, Tex.
265.	BAL-WAS	Baltimore, Md.	Washington, D.C.
266.	COS-DEN	Colorado Springs, Colo.	Denver, Colo.
267.	MCI-OKC	Kansas City, Mo.	Oklahoma City, Okla.
268.	SCK-SFO	Stockton, Calif.	San Francisco, Calif.
269.	SRQ-TPA	Sarasota, Fla.	Tampa, Fla.
270.	DSM-MLI	Des Moines, Iowa	Moline, Ill.
271.	AUS-ELP	Austin, Tex.	El Paso, Tex.
272.	BIL-FAR	Billings, Mont.	Fargo, N.D.
273.	MKE-SFO	Milwaukee, Wis.	San Francisco, Calif.
274.	MCI-TUS	Kansas City, Mo.	Tucson, Ariz.
275.	MKE-ORD	Milwaukee, Wis.	Chicago, Ill. (O'Hare)
276.	DTW-MSY	Detroit, Mich. (Metropolitan)	New Orleans, La.
277.	CAK-NYC	Akron/Canton, Ohio	New York, N.Y.
278.	BTM-BZN	Butte, Mont.	Bozeman, Mont.
279.	CLT-DTW	Charlotte, N.C.	Detroit, Mich. (Metropolitan)
280.	FWA-NYC	Ft. Wayne, Ind.	New York, N.Y.

281.	FAR-GFK	Fargo, N.D.	Grand Forks, N.D.
282.	OMA-PDX	Omaha, Neb.	Portland, Ore.
283.	ORF-PHF	Norfolk, Va.	Newport News, Va.
284.	NYC-OMA	New York, N.Y.	Omaha, Neb.
285.	FLL-MIA	Ft. Lauderdale, Fla.	Miami, Fla.
286.	FNT-MBS	Flint, Mich.	Saginaw, Mich.
287.	IND-LEX	Indianapolis, Ind.	Lexington, Ky.
288.	CHA-CMH	Chattanooga, Tenn.	Columbus, Ohio
289.	AUS-SAT	Austin, Tex.	San Antonio, Tex.
290.	CLT-DAB	Charlotte, N.C.	Daytona Beach, Fla.
291.	CHA-SDF	Chattanooga, Tenn.	Louisville, Ky.
292.	IDA-PIH	Idaho Falls, Id.	Pocatello, Id.
293.	ABE-AVP	Allentown, Pa.	Wilkes-Barre/Scranton, Pa.
294.	LAS-TPA	Las Vegas, Nev.	Tampa, Fla.
295.	LNK-OMA	Lincoln, Neb.	Omaha, Neb.
296.	CLT-RIC	Charlotte, N.C.	Richmond, Va.
297.	HSV-BNA	Huntsville/Decatur, Ala.	Nashville, Tenn.
298.	IAH-MCI	Houston, Tex.	Kansas City, Mo.
299.	BPT-IAH	Beaumont/Port Arthur, Tex.	Houston, Tex.
300.	BFL-SBA	Bakersfield, Calif.	Santa Barbara, Calif.
301.	CRP-SHR	Casper, Wyo.	Sheridan, Wyo.
302.	DTW-TOL	Detroit, Mich. (Metropolitan)	Toledo, Ohio
303.	DAB-MCO	Daytona Beach, Fla.	Orlando, Fla.
304.	BFL-FAT	Bakersfield, Calif.	Fresno, Calif.
305.	MSP-SAN	Minneapolis/St. Paul, Minn.	San Diego, Calif.
306.	BAL-BUF	Baltimore, Md.	Buffalo, N.Y.
307.	BIS-JMS	Bismarck, N.D.	Jamestown, N.D.
308.	EKO-RNO	Elko, Nev.	Reno, Nev.
309.	DAY-SDF	Dayton, Ohio	Louisville, Ky.
310.	MSY-OKC	New Orleans, La.	Oklahoma City, Okla.
311.	CVG-TOL	Cincinnati, Ohio	Toledo, Ohio
312.	BHM-MLU	Birmingham, Ala.	Monroe, La.
313.	ILG-WAS	Wilmington, Del.	Washington, D.C.
314.	DAY-PHL	Dayton, Ohio	Philadelphia, Pa.
315.	BTM-HLN	Butte, Mont.	Helena, Mont.
316.	BTM-GTF	Butte, Mont.	Great Falls, Mont.
317.	MCE-VIS	Merced, Calif.	Visalia, Calif.
318.	MHT-ORH	Manchester, N.H.	Worcester, Mass.
319.	JAX-MLB	Jacksonville, Fla.	Melbourne, Fla.
320.	BAL-SEA	Baltimore, Md.	Seattle, Wash.

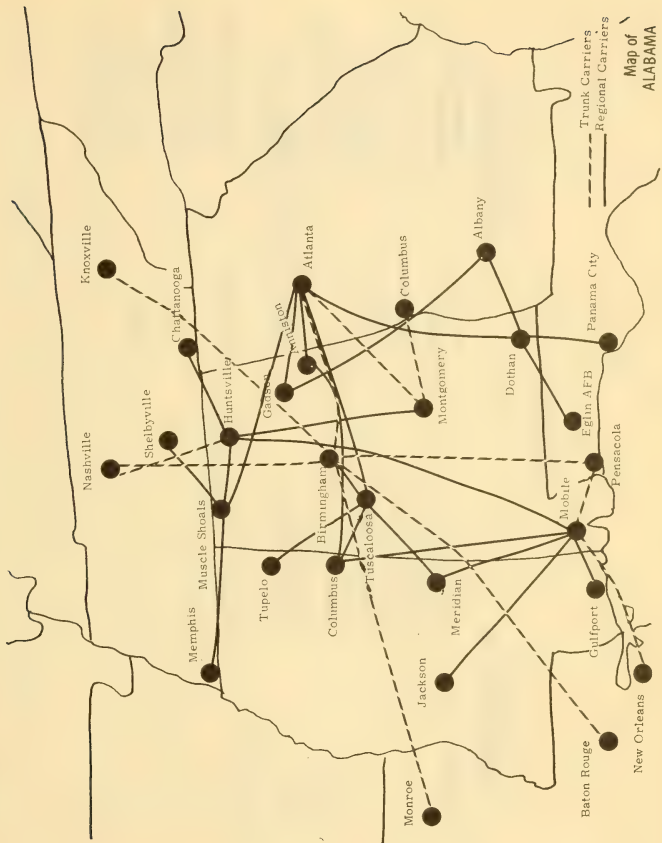
321.	BOS-IAH	Boston, Mass.	Houston, Texas
322.	CLT-JAX	Charlotte, N.C.	Jacksonville, Fla.
323.	EVV-MEM	Evansville, Ind.	Memphis, Tenn.
324.	JAX-SRQ	Jacksonville, Fla.	Sarasota, Fla.
325.	BTW-PWM	Burlington, Vt.	Portland, Me.
326.	GRR-MBS	Grand Rapids, Mich.	Saginaw, Mich.
327.	CVG-DAY	Cincinnati, Ohio	Dayton, Ohio
328.	MHT-PWM	Manchester, N.H.	Portland, Me.
329.	MOD-SCK	Modesto, Calif.	Stockton, Calif.
330.	BOS-PVD	Boston, Mass.	Providence, R.I.
331.	BAL-ROC	Baltimore, Md.	Rochester, N.Y.
332.	CMH-TYS	Columbus, Ohio	Knoxville, Tenn.
333.	ELP-IAH	El Paso, Tex.	Houston, Tex.
334.	BHM-TYS	Birmingham, Ala.	Knoxville, Tenn.
335.	MCE-MOD	Merced, Calif.	Modesto, Calif.
336.	EVV-LEX	Evansville, Ind.	Lexington, Ky.
337.	CHA-IND	Chattanooga, Tenn.	Indianapolis, Ind.
338.	MIA-SRQ	Miami, Fla.	Sarasota, Fla.
339.	NEA-MCN	Brunswick, Ga.	Macon, Ga.
340.	RDU-WAS	Raleigh/Durham, N.C.	Washington, D.C.
341.	CAK-CLE	Akron/Canton, Ohio	Cleveland, Ohio
342.	BHM-BTR	Birmingham, Ala.	Baton Rouge, La.
343.	GNV-TIX	Gainesville, Fla.	Titusville, Fla.
344.	FNT-LAN	Flint, Mich.	Lansing, Mich.
345.	LAW-SPS	Lawton, Okla.	Wichita Falls, Tex.
346.	GTF-HLN	Great Falls, Mont.	Helena, Mont.
347.	CID-LNK	Cedar Rapids/Iowa City, Ia.	Lincoln, Neb.
348.	FMV-MCO	Fort Myers, Fla.	Orlando, Fla.
349.	PDX-SLE	Portland, Ore.	Salem, Ore.
350.	BAL-HVN	Baltimore, Md.	New Haven, Conn.
351.	MKE-RST	Milwaukee, Wis.	Rochester, Minn.
352.	FWA-TOL	Ft. Wayne, Ind.	Toledo, Ohio
353.	LEB-NYC	Lebanon, N.H.	New York, N.Y.
354.	DAY-TOL	Dayton, Ohio	Toledo, Ohio
355.	MCO-MLB	Orlando, Fla.	Melbourne, Fla.
356.	EKO-ELY	Elko, Nev.	Ely, Nev.
357.	BOS-MHT	Boston, Mass.	Manchester, N.H.
358.	ELY-SLC	Ely, Nev.	Salt Lake City, Utah
359.	NEA-SAV	Brunswick, Ga.	Savannah, Ga.
360.	EWB-NYC	New Bedford, Mass.	New York, N.Y.

361.	DAB-FLL	Daytona Beach, Fla.	Ft. Lauderdale, Fla.
362.	AGS-CHS	Augusta, Ga.	Charleston, S. C.
363.	EEN-LEB	Keene, N. H.	Lebanon, N. H.
364.	BIL-SHR	Billings, Mont.	Sheridan, Wyo.
365.	CMH-LEX	Columbus, Ohio	Lexington, Ky.
366.	DSM-LNK	Des Moines, Iowa	Lincoln, Neb.
367.	BZN-HLN	Bozeman, Mont.	Helena, Mont.
368.	MHT-NYC	Manchester, N. H.	New York, N. Y.
369.	BOS-EWB	Boston, Mass.	New Bedford, Mass.
370.	MOD-SFO	Modesto, Calif.	San Francisco, Calif.
371.	JAX-NEA	Jacksonville, Fla.	Brunswick, Ga.
372.	EEN-MHT	Keene, N. H.	Manchester, N. H.

EXHIBIT C

CITY PAIRS RISKING LOSS OF SERVICE

BY STATE



ALABAMA

Trunk Carriers
Unprofitable Services

Birmingham	Atlanta, Ga. Baton Rouge, La. Knoxville, Tenn. Nashville, Tenn. Monroe, La. Pensacola, Fla.
Huntsville	Nashville, Tenn.
Mobile	New Orleans, La. Pensacola, Fla.
Montgomery	Atlanta, Ga. Columbus, Ga.

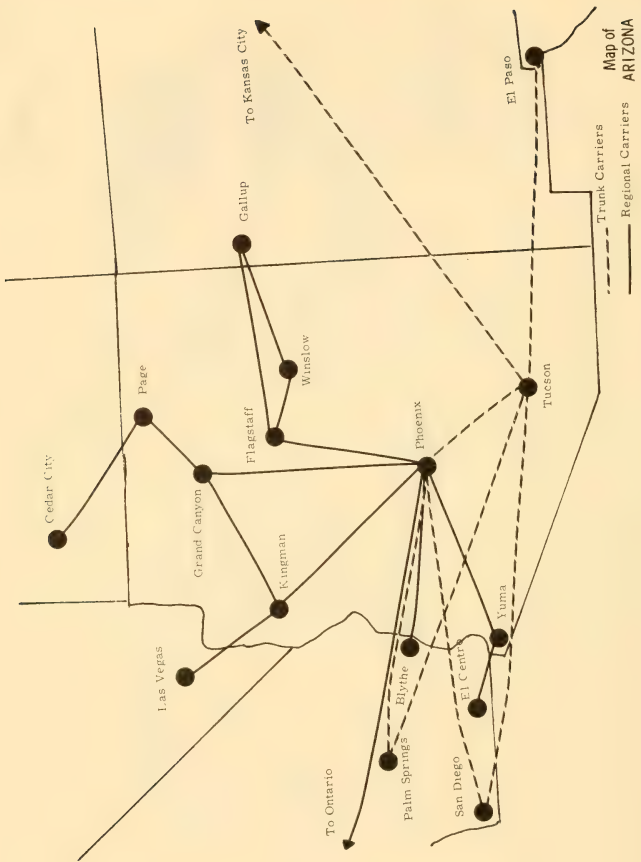
Regional Carriers
Subsidized Services

Anniston	Atlanta, Ga. Columbus, Miss.
Birmingham	Tuscaloosa, Ala.
Dothan	Albany, Ga. Atlanta, Ga. Eglin AFB, Fla. Panama City, Fla.
Gadsden	Albany, Ga. Atlanta, Ga.
Huntsville,	Chattanooga, Tenn. Mobile, Ala. Montgomery, Ala. Muscle Shoals, Ala.
Mobile	Columbus, Miss. Gulfport, Miss. Jackson, Miss. Meridian, Miss.

ALABAMA

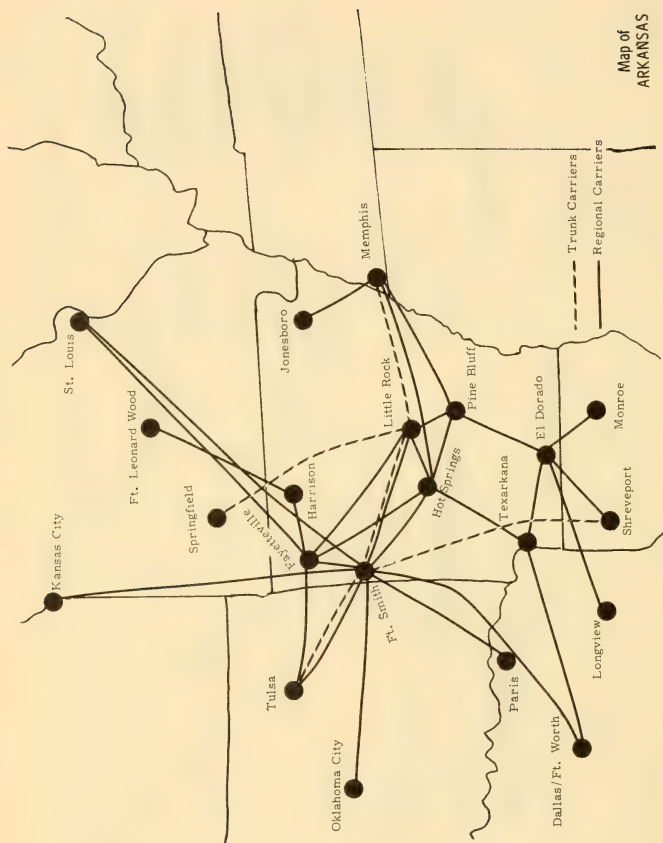
Regional Carriers
Subsidized Services

Muscle Shoals	Atlanta, Ga. Memphis, Tenn. Shelbyville, Tenn.
Tuscaloosa	Atlanta, Ga. Columbus, Miss. Meridian, Miss. Tupelo, Miss.



ARIZONA

<u>Trunk Carriers</u> <u>Unprofitable Services</u>		<u>Regional Carriers</u> <u>Subsidized Services</u>	
Phoenix	Palm Springs, Calif. San Diego, Calif.	Flagstaff	Gallup, N. M. Phoenix, Ariz.
Tucson	El Paso, Texas Kansas City, Mo. Palm Springs, Calif. Phoenix, Ariz. San Diego, Calif.	Grand Canyon	Kingman, Ariz. Page, Ariz. Phoenix, Ariz.
		Kingman	Las Vegas, Nev. Phoenix, Ariz.
		Page	Cedar City, Utah
		Phoenix	Blythe, Calif. Ontario, Calif.
		Winslow	Flagstaff, Ariz. Gallup, N. M.
		Yuma	El Centro, Calif. Phoenix, Ariz.



ARKANSAS

Trunk Carriers
Unprofitable Services

Fort Smith Shreveport, La.
 Tulsa, Okla.

Little Rock Fort Smith, Ark.
 Memphis, Tenn.
 Springfield, Mo.

Regional Carriers
Subsidized Services

El Dorado/Camden Longview, Tex.
 Monroe, La.
 Pine Bluff, Ark.
 Shreveport, La.
 Texarkana, Ark.

Fayetteville Harrison, Ark.
 Hot Springs, Ark.
 Little Rock, Ark.
 St. Louis, Mo.
 Tulsa, Okla.

Fort Smith Dallas/Ft. Worth, Tex.
 Fayetteville, Ark.
 Hot Springs, Ark.
 Kansas City, Mo.
 Little Rock, Ark.
 Oklahoma City, Okla.
 Paris, Tex.
 St. Louis, Mo.
 Tulsa, Okla.

Harrison Ft. Leonard Wood, Mo.

Hot Springs Little Rock, Ark.
 Memphis, Tenn.
 Pine Bluff, Ark.

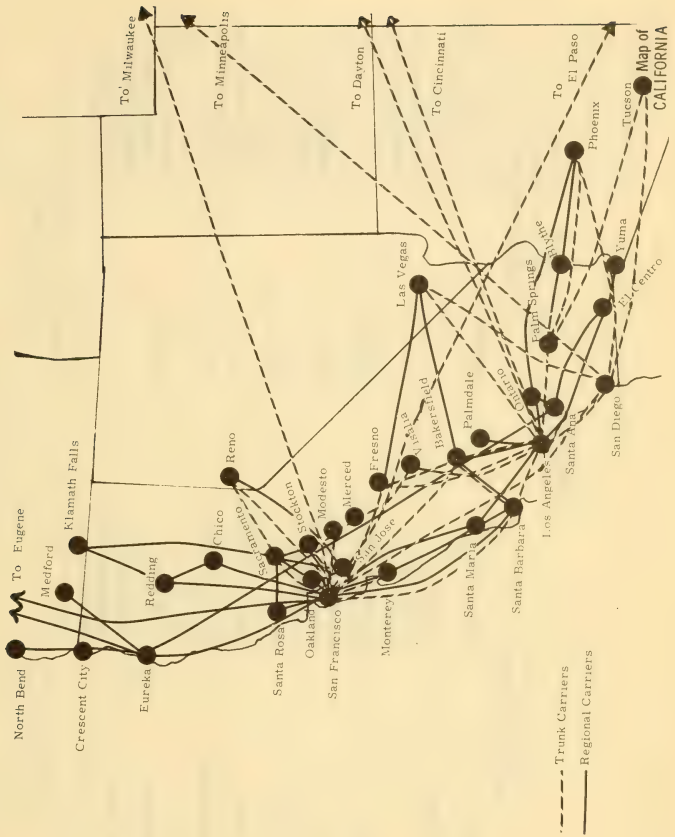
ARKANSAS (Cont'd)

Regional Carriers
Subsidized Services

Jonesboro Memphis, Tenn.

Pine Bluff Little Rock, Ark.
 Memphis, Tenn.

Texarkana Dallas/Ft. Worth, Tex.
 Hot Springs, Ark.



CALIFORNIA

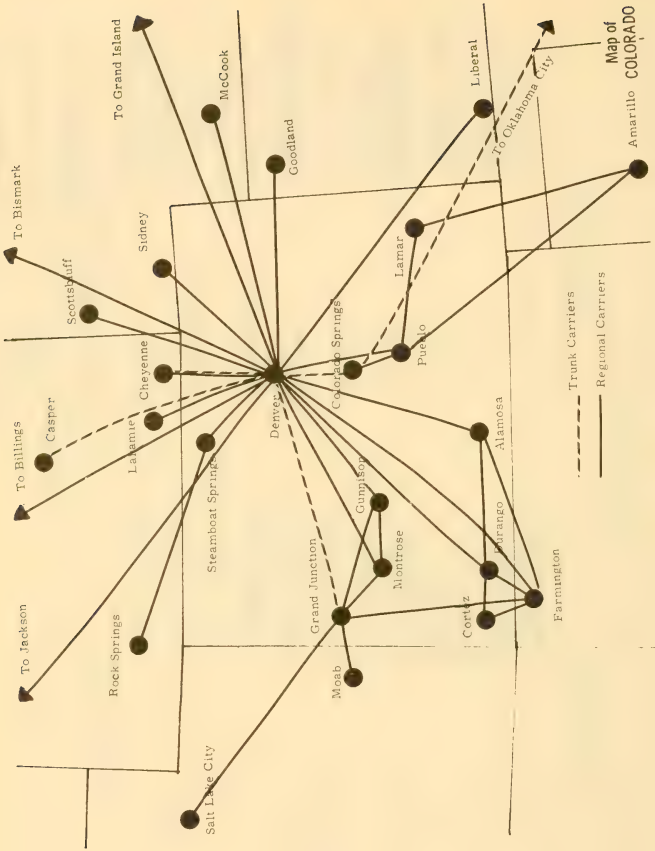
<u>Trunk Carriers</u>		<u>Regional Carriers</u>	
<u>Unprofitable Services</u>		<u>Subsidized Services</u>	
Fresno	Bakersfield, Calif.	Bakersfield	Las Vegas, Nev. Los Angeles, Calif. Santa Barbara, Calif.
Los Angeles	Bakersfield, Calif. Cincinnati, Ohio Dayton, Ohio Fresno, Calif. Las Vegas, Nev. Palm Springs, Calif. San Diego, Calif. Santa Barbara, Calif.	Blythe Burbank Chico	Palm Springs, Calif. Phoenix, Ariz. Ontario, Calif. Redding, Calif. San Francisco, Calif.
Merced	Visalia, Calif.	Crescent City	North Bend, Oreg.
Modesto	Merced, Calif.	El Centro	Los Angeles, Calif. Santa Ana, Calif. Yuma, Ariz.
Palm Springs	Phoenix, Ariz. Tucson, Ariz.	Eureka	Crescent City, Calif. Eugene, Oreg. Medford, Oreg. San Francisco, Calif. Santa Ana, Calif.
Sacramento	Reno, Nev.		
San Diego	Las Vegas, Nev. Minneapolis, Minn. Phoenix, Ariz. Tucson, Ariz.	Fresno	Las Vegas, Nev.

CALIFORNIA (Cont'd.)

Trunk Carriers
Unprofitable Services

Regional Carriers
Subsidized Services

San Francisco	Bakersfield, Calif. El Paso, Texas Fresno, Calif. Milwaukee, Wis. Modesto, Calif. Monterey, Calif. Reno, Nev. Sacramento, Calif. San Diego, Calif. Santa Barbara, Calif. Stockton, Calif.	Los Angeles	Palmdale, Calif. Phoenix, Ariz. Santa Maria, Calif.
		Monterey	San Francisco, Calif. Santa Maria, Calif.
		Oakland	Sacramento, Calif. San Francisco, Calif. San Jose, Calif.
Santa Barbara	Bakersfield, Calif.	Ontario	Santa Ana, Calif.
Stockton	Modesto, Calif.	Redding	Klamath Falls, Oreg. San Francisco, Calif.
Visalia	Los Angeles, Calif.	Sacramento	Klamath Falls, Oreg. Santa Rosa, Calif.
		San Francisco	Eugene, Oreg. Santa Rosa, Calif.
		San Jose	Reno, Nev. Sacramento, Calif.
		Santa Barbara	San Francisco, Calif. Santa Maria, Calif.
		Santa Maria	San Francisco, Calif.
		Stockton	Sacramento, Calif. San Francisco, Calif.



COLORADO

Trunk Carriers
Unprofitable Services

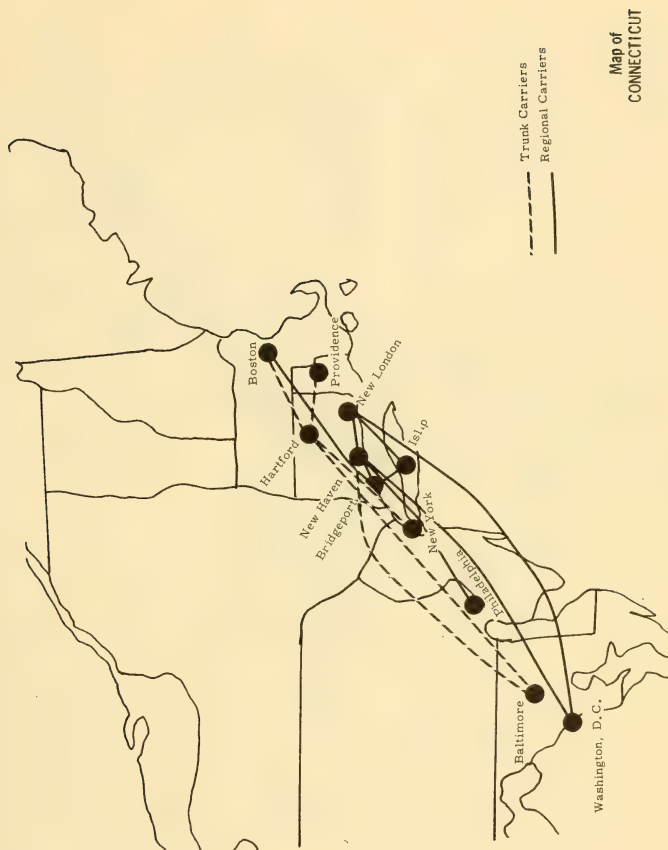
Regional Carriers
Subsidized Services

Colorado Springs	Oklahoma City, Okla.	Alamosa	Durango, Colo. Farmington, N. M.
Denver	Casper, Wyo. Cheyenne, Wyo. Colorado Springs, Colo. Grand Junction, Colo.	Colorado Springs Cortez Denver	Pueblo, Colo. Farmington, N. M. Alamosa, Colo. Billings, Mont. Bismark, N. Dak. Cheyenne, Wyo. Durango, Colo. Farmington, N. M. Goodland, Kan. Grand Island, Nebr. Gunnison, Colo. Jackson, Wyo. Laramie, Wyo. Liberal, Kan. McCook, Nebr. Montrose, Colo. Pueblo, Colo. Scottsbluff, Nebr. Sidney, Nebr. Steamboat Springs, Colo.
		Durango	Cortez, Colo. Farmington, N. M.

COLORADO (Cont'd.)

	Regional Carriers
	<u>Subsidized Services</u>

Grand Junction	Farmington, N. M. Gunnison, Colo. Moab, Utah Montrose, Colo. Salt Lake City, Utah
Gunnison	Montrose, Colo.
Lamar	Amarillo, Tex.
Pueblo	Amarillo, Tex. Lamar, Colo.
Steamboat Springs	Rock Springs, Wyo.



DELAWARE

Trunk Carriers
Unprofitable Services

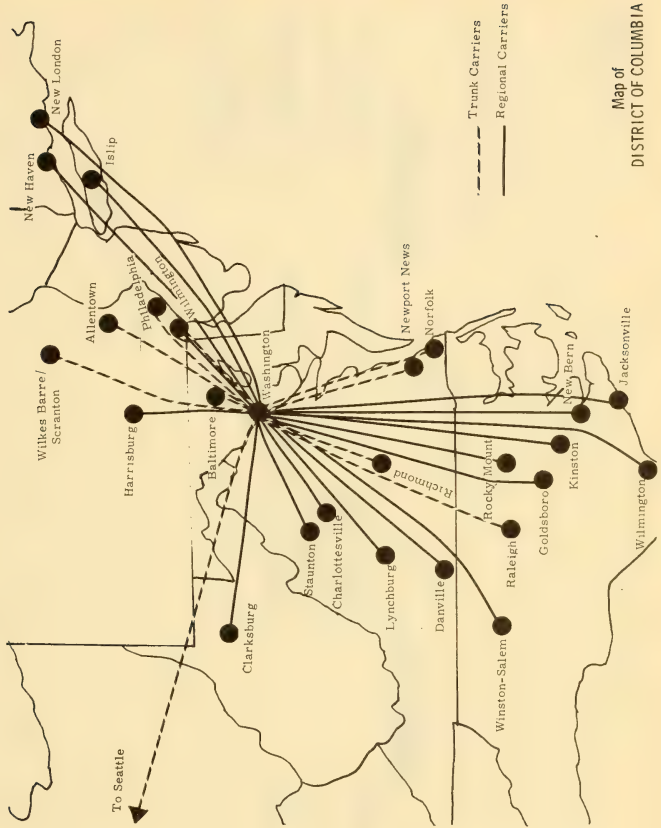
Wilmington

Washington, D. C.

Regional Carriers
Subsidized Services

Wilmington

Washington, D. C.



Map of
DISTRICT OF COLUMBIA

CONNECTICUTTrunk Carriers
Unprofitable Services

Hartford

Baltimore, Md.
Boston, Mass.
New York, N. Y.
Providence, R. I.

New Haven

Baltimore, Md.

Regional Carriers
Subsidized Services

Bridgeport

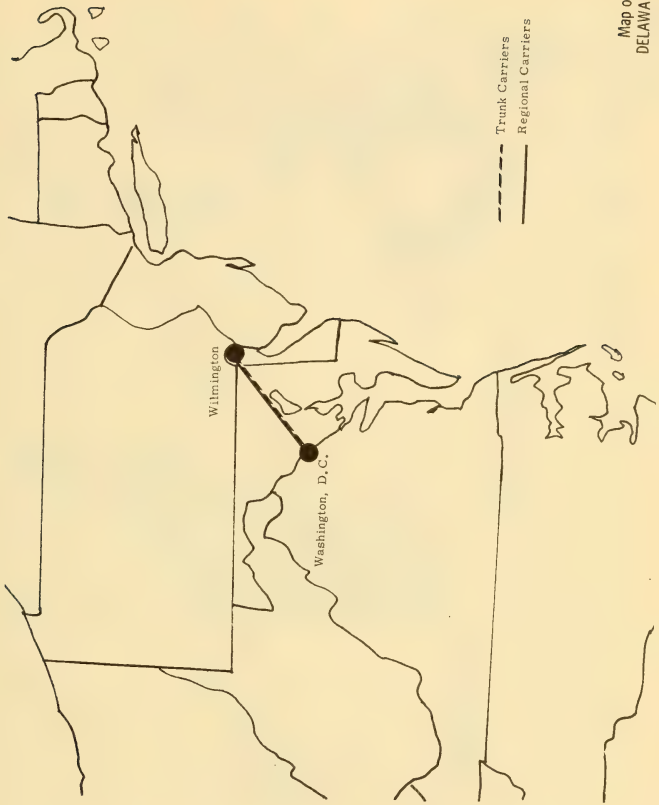
Boston, Mass.
Islip, N. Y.
New Haven, Conn.

New Haven

Philadelphia, Pa.
Washington, D. C.

New London

Islip, N. Y.
New Haven, Conn.
Washington, D. C.



DISTRICT OF COLUMBIATrunk Carriers
Unprofitable Services

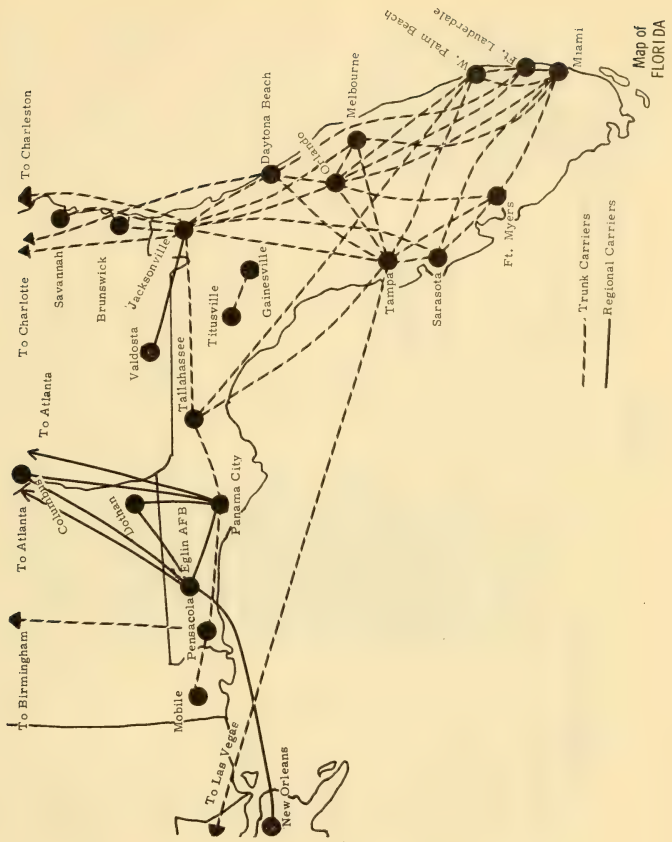
Washington, D. C.

Allentown, Pa.
 Baltimore, Md.
 Newport News, Va.
 Norfolk, Va.
 Philadelphia, Pa.
 Raleigh/Durham, N. C.
 Richmond, Va.
 Seattle, Wash.
 Wilkes Barre/Scranton, Pa.
 Wilmington, Del.

Regional Carriers
Subsidized Services

Washington, D. C.

Charlottesville, Va.
 Clarksburg, W. Va.
 Danville, Va.
 Goldsboro, N. C.
 Harrisburg, Pa.
 Islip, N. Y.
 Jacksonville, N. C.
 Kingston, N. C.
 Lynchburg, Va.
 New Bern, N. C.
 New Haven, Conn.
 New London, Conn.
 Rocky Mount, N. C.
 Staunton, Va.
 Wilmington, Del.
 Wilmington, N. C.
 Winston-Salem, N. C.



FLORIDA

<u>Trunk Carriers</u> <u>Unprofitable Services</u>		<u>Regional Carriers</u> <u>Subsidized Services</u>	
Daytona Beach	Charlotte, N. C. Ft. Lauderdale, Fla. Orlando, Fla.	Eglin AFB	Atlanta, Ga. Columbus, Ga. Dothan, Ala. New Orleans, La. Panama City, Fla.
Ft. Lauderdale	West Palm Beach, Fla.	Jacksonville	Valdosta, Ga.
Jacksonville	Brunswick, Ga. Charleston, S. C. Charlotte, N. C. Daytona Beach, Fla. Melbourne, Fla. Orlando, Fla. Sarasota, Fla. Savannah, Ga.	Panama City	Atlanta, Ga. Columbus, Ga. Dothan, Ala.
Miami	Ft. Lauderdale, Fla. Ft. Myers, Fla. Melbourne, Fla. Sarasota, Fla. West Palm Beach, Fla.		
Orlando	Ft. Lauderdale, Fla. Ft. Myers, Fla. Melbourne, Fla. Miami, Fla. West Palm Beach, Fla.		
Pensacola	Birmingham, Ala. Mobile, Ala. Panama City, Fla.		

FLORIDA (Cont'd.)

Sarasota

Ft. Myers, Fla.

Tallahassee

Jacksonville, Fla.

Panama City, Fla.

Tampa, Fla.

West Palm Beach, Fla.

Tampa

Daytona Beach, Fla.

Ft. Myers, Fla.

Jacksonville, Fla.

Las Vegas, Nev.

Melbourne, Fla.

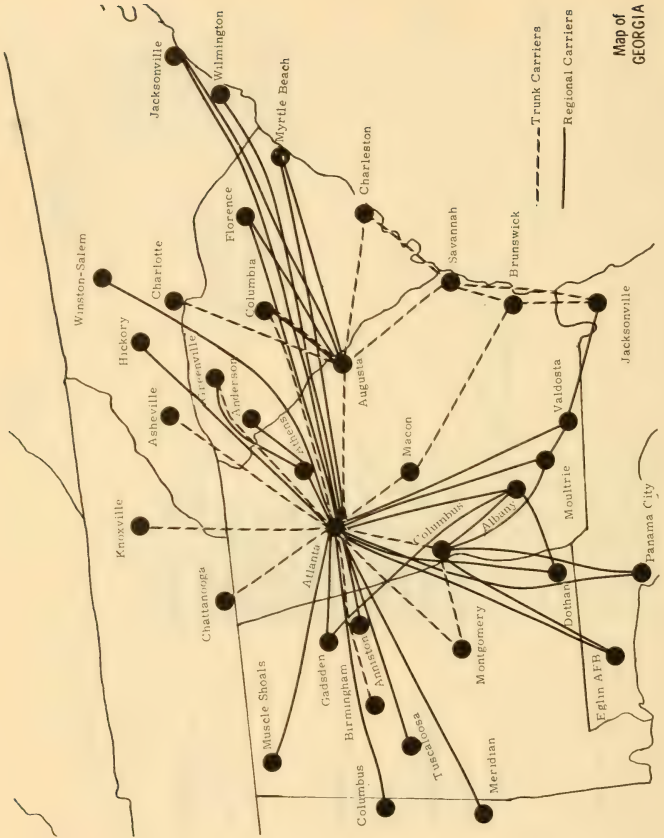
Orlando, Fla.

Sarasota, Fla.

West Palm Beach, Fla.

Titusville

Gainesville, Fla.



GEORGIATrunk Carriers
Unprofitable Services

Atlanta	Asheville, N. C. Augusta, Ga. Birmingham, Ala. Chattanooga, Tenn. Columbia, S. C. Columbus, Ga. Greenville, S. C. Knoxville, Tenn. Macon, Ga. Montgomery, Ala.
Augusta	Charleston, S. C. Charlotte, N. C. Columbia, S. C.
Brunswick	Jacksonville, Fla. Macon, Ga. Savannah, Ga.
Columbus	Montgomery, Ala.
Savannah	Augusta, Ga. Charleston, S. C. Jacksonville, Fla.

Regional Carriers
Subsidized Services

Albany	Atlanta, Ga. Columbus, Ga. Dothan, Ala. Gadsden, Ala.
Athens	Anderson, S. C. Atlanta, Ga. Greenville, S. C.
Atlanta	Anniston, Ala. Columbus, Miss. Dothan, Ala. Eglin AFB, Fla. Florence, S. C. Gadsden, Ala. Hickory, N. C. Jacksonville, N. C. Meridian, Miss. Moultrie, Ga. Myrtle Beach, S. C. Muscle Shoals, Ala. Panama City, Fla. Tuscaloosa, Ala. Valdosta, Ga. Wilmington, N. C. Winston-Salem, N. C.

GEORGIA

Regional Carriers
Subsidized Services

Augusta

Columbia, S. C.
Florence, S. C.
Jacksonville, N. C.
Myrtle Beach, S. C.

Columbus

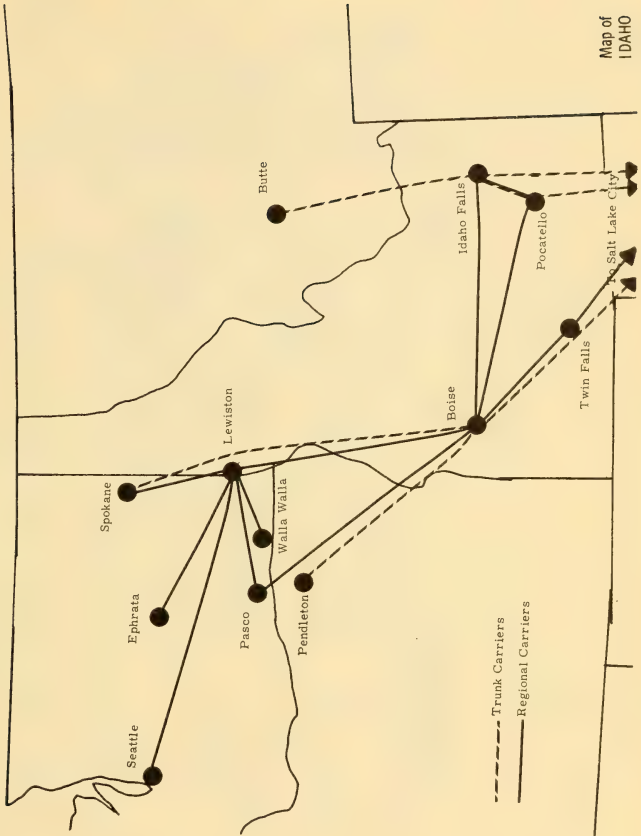
Eglin AFB, Fla.
Panama City, Fla.

Moultrie

Columbus, Ga.
Valdosta, Ga.

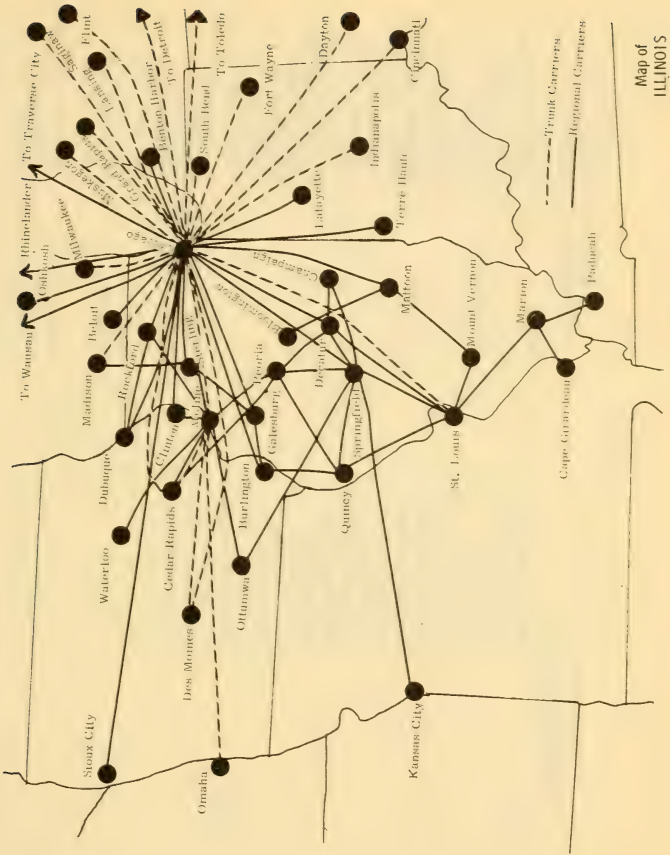
Valdosta

Jacksonville, Fla.



IDAHO

<u>Trunk Carriers</u> <u>Unprofitable Services</u>		<u>Regional Carriers</u> <u>Subsidized Services</u>	
Boise	Pendleton, Oreg. Salt Lake City, Utah Spokane, Wash.	Boise	Idaho Falls, Idaho Lewiston, Idaho Pasco, Wash. Pocatello, Idaho Twin Falls, Idaho
Idaho Falls	Butte, Mont. Salt Lake City, Utah	Idaho Falls	Pocatello, Idaho
Pocatello	Idaho Falls, Idaho Salt Lake City, Utah	Lewiston	Ephrata, Wash. Pasco, Wash. Seattle, Wash. Spokane, Wash. Walla Walla, Wash.
		Twin Falls	Salt Lake City, Utah



ILLINOISTrunk CarriersUnprofitable Services

Chicago

Cedar Rapids, Iowa
 Cincinnati, Ohio
 Dayton, Ohio
 Detroit, Mich.
 Flint, Mich.
 Fort Wayne, Ind.
 Grand Rapids, Mich.
 Indianapolis, Ind.
 Lansing, Mich.
 Madison, Wisc.
 Milwaukee, Wisc.
 Muskegon, Mich.
 Saginaw, Mich.
 St. Louis, Mo.
 South Bend, Ind.
 Toledo, Ohio

Moline

Cedar Rapids, Iowa
 Chicago, Ill.
 Des Moines, Iowa
 Omaha, Neb.

Regional Carriers
Subsidized Services

Chicago

Beloit, Wisc.
 Benton Harbor, Mich.
 Burlington, Iowa
 Clinton, Iowa
 Decatur, Ill.
 Dubuque, Iowa
 Galesburg, Ill.
 Lafayette, Ind.
 Mattoon, Ill.
 Oshkosh, Wisc.
 Rhinelander, Wisc.
 Rockford, Ill.
 Terre Haute, Ind.
 Traverse City, Mich.
 Sioux City, Iowa
 Springfield, Ill.
 Sterling, Ill.
 Wausau, Wisc.

Decatur

Champaign, Ill.
 Peoria, Ill.
 Springfield, Ill.
 St. Louis, Mo.

Galesburg

Burlington, Iowa
 Sterling, Ill.

Marion

Cape Girardeau, Mo.
 Paducah, Ky.
 St. Louis, Mo.

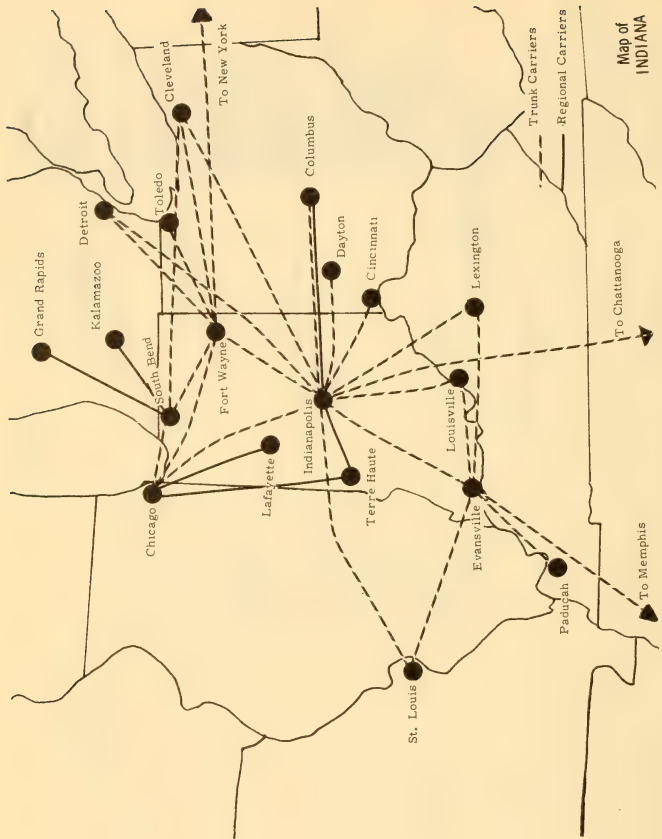
Mattoon

Bloomington, Ill.

ILLINOIS (Continued)

	Regional Carriers
	<u>Subsidized Services</u>

Moline	Cedar Rapids, Iowa Clinton, Iowa Ottumwa, Iowa Peoria, Ill. Rockford, Ill. Sterling, Ill. Waterloo, Iowa
Mount Vernon	Mattoon, Ill. St. Louis, Mo.
Peoria	Cedar Rapids, Iowa Quincy, Ill. Springfield, Ill.
Quincy	Burlington, Iowa St. Louis, Mo.
Rockford	Dubuque, Iowa
Springfield	Champaign, Ill. Kansas City, Mo. Ottumwa, Iowa St. Louis, Mo.



INDIANATrunk Carriers
Unprofitable Services

Evansville

Indianapolis, Ind.
Lexington, Ky.
Louisville, Ky.
Memphis, Tenn.
Paducah, Ky.
St. Louis, Mo.

Fort Wayne

Chicago, Ill.
Cleveland, Ohio
Detroit, Mich.
Indianapolis, Ind.
New York, N. Y.
Toledo, Ohio

Indianapolis

Chattanooga, Tenn.
Chicago, Ill.
Cincinnati, Ohio
Cleveland, Ohio
Columbus, Ohio
Dayton, Ohio
Detroit, Mich.
Lexington, Ky.
Louisville, Ky.
St. Louis, Mo.

South Bend

Chicago, Ill.
Cleveland, Ohio
Fort Wayne, Ind.

Regional Carriers
Subsidized Services

Indianapolis

Columbus, Ohio

Lafayette

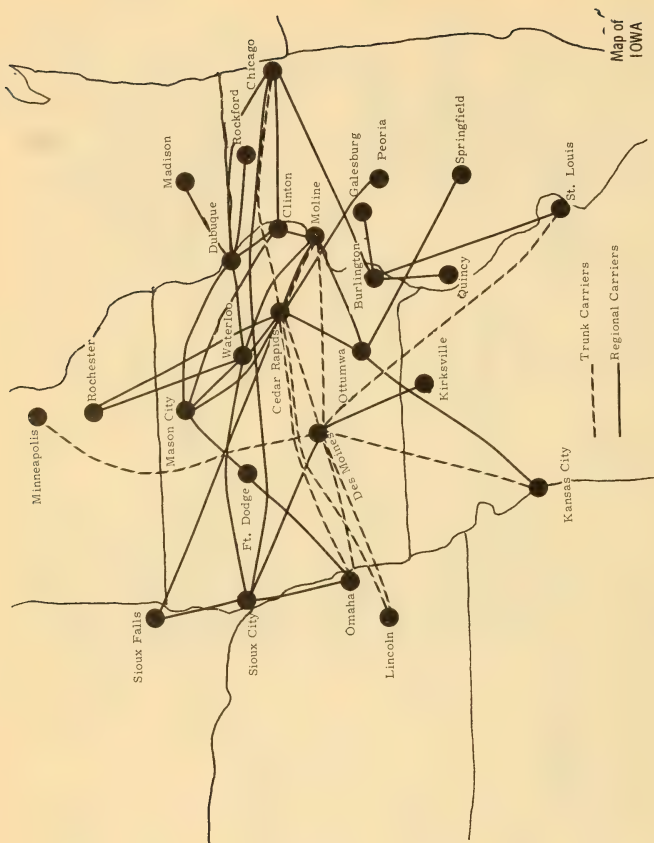
Chicago, Ill.

South Bend

Grand Rapids, Mich.
Kalamazoo, Mich.

Terre Haute

Chicago, Ill.
Indianapolis, Ind.



IOWA

Trunk Carriers

Unprofitable Services

Cedar Rapids

Chicago, Ill.
Des Moines, Iowa
Lincoln, Nebr.
Moline, Ill.
Omaha, Nebr.

Des Moines

Kansas City, Mo.
Lincoln, Nebr.
Minneapolis, Minn.
Moline, Ill.
Omaha, Nebr.
St. Louis, Mo.

Regional Carriers
Subsidized Services

Burlington

Chicago, Ill.
Galesburg, Ill.
Quincy, Ill.
St. Louis, Mo.

Cedar Rapids

Mason City, Iowa
Moline, Ill.
Ottumwa, Iowa
Peoria, Ill.
Rochester, Minn.
Sioux Falls, S. Dak.

Clinton

Chicago, Ill.
Dubuque, Iowa
Mason City, Iowa
Moline, Ill.

Des Moines

Kirksville, Mo.
Sioux City, Iowa

Dubuque

Chicago, Ill.
Madison, Wis.
Mason City, Iowa
Rockford, Ill.

Ft. Dodge

Mason City, Iowa
Omaha, Nebr.

Ottumwa

Kansas City, Mo.
Moline, Ill.
Springfield, Ill.

IOWA (Cont'd.)

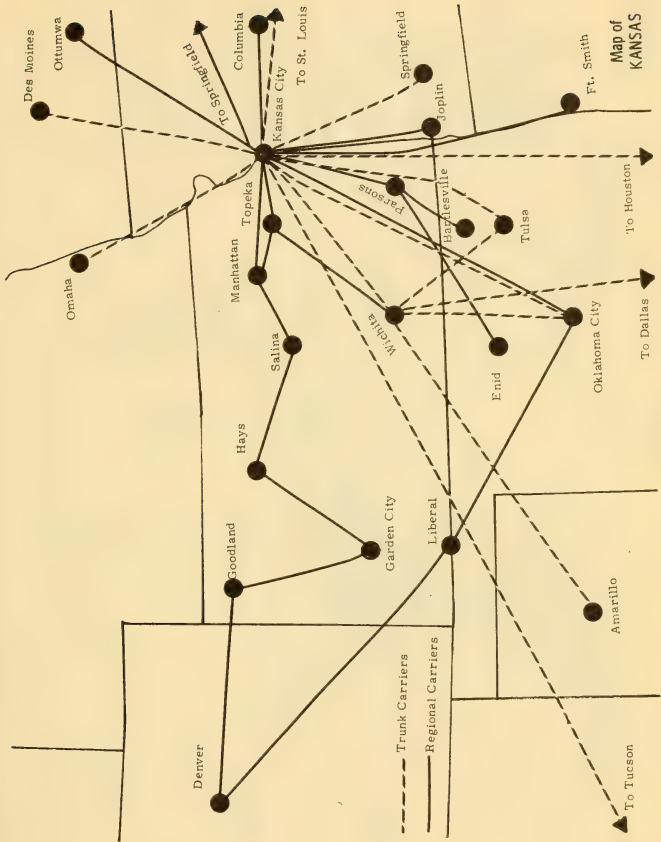
Regional Carriers
Subsidized Services

Sioux City

Chicago, Ill.
Omaha, Nebr.
Sioux Falls, Nebr.

Waterloo

Cedar Rapids, Iowa
Dubuque, Iowa
Mason City, Iowa
Moline, Ill.
Rochester, Minn.
Sioux City, Iowa



KANSAS

Trunk Carriers Unprofitable Services

Kansas City

Des Moines, Iowa
Houston, Texas
Oklahoma City, Okla.
Omaha, Neb.
Springfield, Mo.
St. Louis, Mo.
Tucson, Ariz.
Tulsa, Okla.
Wichita, Kan.

Wichita

Amarillo, Texas
Dallas, Texas
Oklahoma City, Okla.
Tulsa, Okla.

Regional Carriers Subsidized Services

Kansas City

Columbia, Mo.
Ft. Smith, Ark.
Joplin, Mo.
Manhattan, Kan.
Oklahoma City, Okla.
Ottumwa, Iowa
Parsons, Kan.
Springfield, Ill.
Topeka, Kan.

Goodland

Garden City, Kan.
Denver, Colo.

Hays

Garden City, Kan.
Salina, Kan.

Liberal

Denver, Colo.
Oklahoma City, Okla.

Manhattan

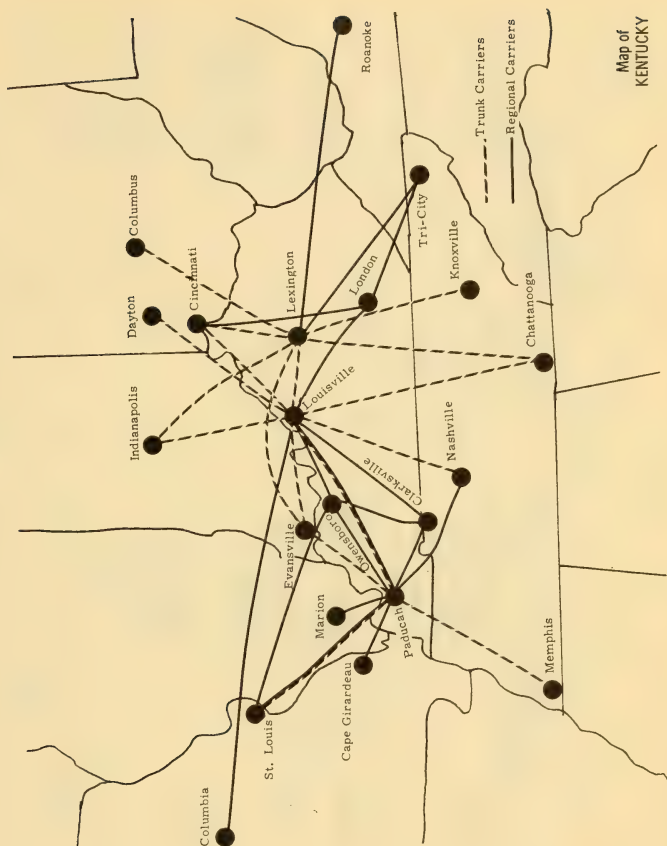
Salina, Kan.
Topeka, Kan.

Parsons

Bartlesville, Okla.
Enid, Okla.

Topeka

Wichita, Kan.



KENTUCKY

Trunk Carriers Unprofitable Services

Lexington Chattanooga, Tenn.
Cincinnati, Ohio
Columbus, Ohio
Evansville, Ind.
Indianapolis, Ind.
Knoxville, Tenn.

Louisville

Chattanooga, Tenn.
Cincinnati, Ohio
Dayton, Ohio
Evansville, Ind.
Indianapolis, Ind.
Lexington, Ky.
Nashville, Tenn.

Paducah

Evansville, Ind.
Louisville, Ky.
Memphis, Tenn.
St. Louis, Mo.

Regional Carriers Subsidized Services

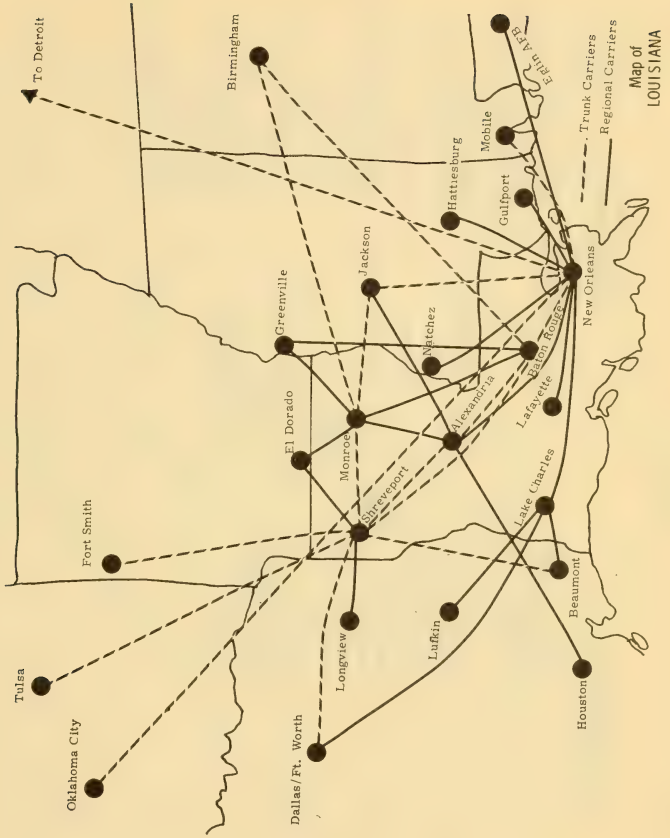
Lexington Roanoke, Va.
Tri-City, Tenn.

London Cincinnati, Ohio
Tri-City, Tenn.

Louisville Clarksville, Tenn.
Columbia, Mo.
London, Ky.

Owensboro Clarksville, Tenn.
Louisville, Ky.
Paducah, Ky.
St. Louis, Mo.

Paducah Cape Girardeau, Mo.
Clarksville, Tenn.
Louisville, Ky.
Marion, Ill.
Nashville, Tenn.
St. Louis, Mo.

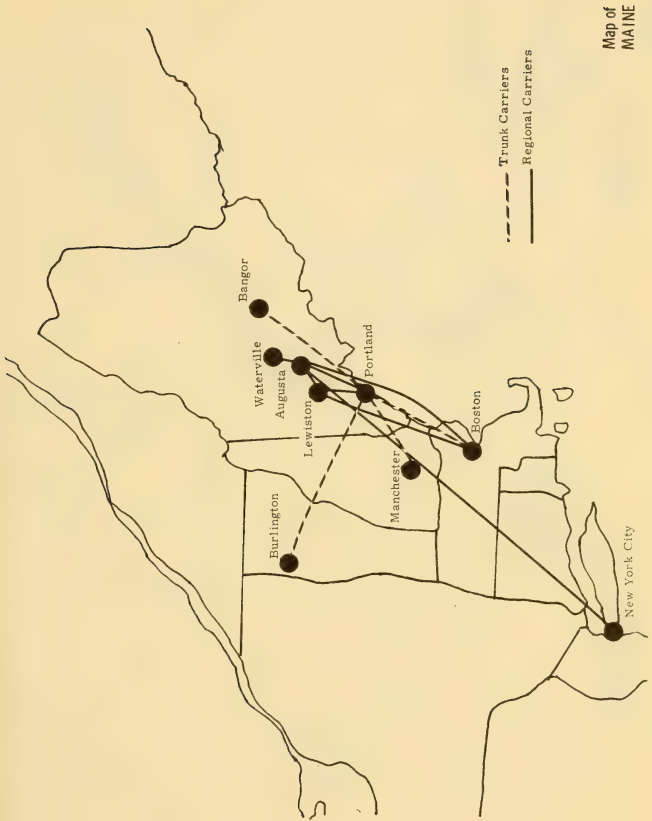


Trunk Carriers
Unprofitable Services

Baton Rouge	Alexandria, La. Birmingham, Ala. New Orleans, La.
Monroe	Birmingham, Ala. Dallas, Texas Jackson, Miss. Shreveport, La.
New Orleans	Detroit, Mich. Jackson, Miss. Mobile, Ala. Oklahoma City, Okla.
Shreveport	Alexandria, La. Baton Rouge, La. Beaumont, Texas Fort Smith, Ark. Tulsa, Okla.

Regional Carriers
Subsidized Services

Alexandria	Houston, Texas Jackson/Vicksburg, Miss. Monroe, La. New Orleans, La.
Baton Rouge	Greenville, Miss. Monroe, La.
Lafayette	New Orleans
Lake Charles	Beaumont/Port Arthur, Tx. Dallas/Ft. Worth, Texas Lufkin, Texas New Orleans
Monroe	El Dorado/Camden, Ark. Greenville, Miss.
New Orleans	Elgin AFB, Fla. Gulfport/Biloxi, Miss. Hattiesburg, Miss. Natchez, Miss.
Shreveport	El Dorado/Camden, Ark. Longview, Texas

Map of
MAINE

MAINE

Trunk Carriers
Unprofitable Services

Portland

Bangor, Maine
Boston, Mass.
Burlington, Vt.
Manchester, N. H.

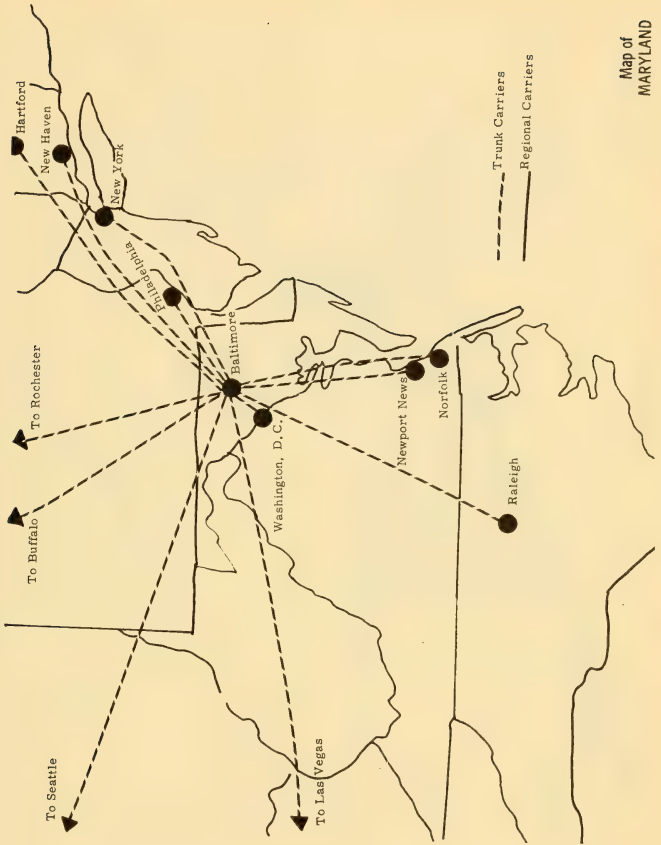
Regional Carriers
Subsidized Services

Augusta

Boston, Mass.
New York, N. Y.
Portland, Maine
Waterville, Maine

Lewiston

Augusta, Maine
Boston, Mass.
Portland



Map of
MARYLAND

Trunk Carriers
Unprofitable Services

Baltimore

Buffalo, N. Y.
Hartford, Conn.
Las Vegas, Nev.
New Haven, Conn.
Newport News, Va.
Norfolk, Va.
New York, N. Y.
Philadelphia, Pa.
Raleigh, N. C.
Rochester, N. Y.
Seattle, Wash.
Washington, D. C.



MASSACHUSETTS

Trunk Carriers Unprofitable Services

Boston

Burlington, Vt.
Hartford, Conn.
Houston, Tex.
Manchester, N. H.
New Bedford, Mass.
Portland, Maine
Providence, R. I.

New Bedford

New York, N. Y.

Worcester

Manchester, N. H.
New York, N. Y.

Regional Carriers Subsidized Services

Boston

Augusta, Maine
Binghamton, N. Y.
Bridgeport, Conn.
Hyannis, Mass.
Islip, N. Y.
Keene, N. H.
Lebanon, N. H.
Lewiston, Maine
Martha's Vineyard, Mass.
Montpelier, Vt.
Nantucket, Mass.
White Plains, N. Y.
Worcester, Mass.

Hyannis

Martha's Vineyard, Mass.
Nantucket, Mass.

Martha's Vineyard

New York, N. Y.

Nantucket

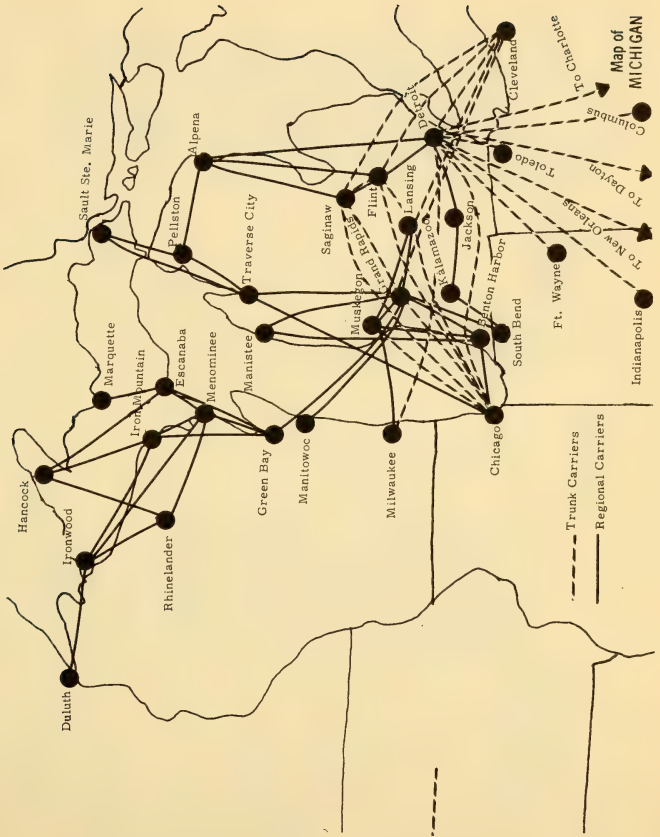
Martha's Vineyard, Mass.

New Bedford

Boston, Mass.
Hyannis, Mass.
Martha's Vineyard, Mass.
New York, N. Y.

Worcester

Keene, N. H.



MICHIGAN

Trunk Carriers
Unprofitable Services

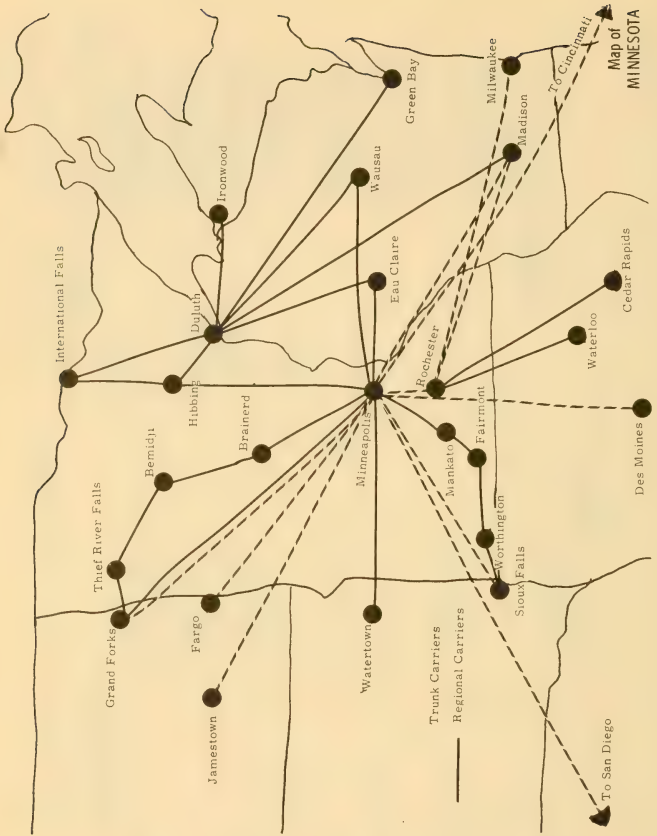
Regional Carriers
Subsidized Services

Detroit	Charlotte, N. C. Chicago, Ill. Cleveland, Ohio Columbus, Ohio Dayton, Ohio Ft. Wayne, Ind. Indianapolis, Ind. Milwaukee, Wis. New Orleans, La. Toledo, Ohio	Alpena	Detroit, Mich. Flint, Mich. Pellston, Mich. Saginaw, Mich.
		Benton Harbor	Chicago, Ill. Grand Rapids, Mich. Manistee, Mich. Muskegon, Mich.
Flint	Chicago, Ill. Cleveland, Ohio	Detroit	Flint, Mich. Jackson, Mich.
Grand Rapids	Chicago, Ill. Cleveland, Ohio	Escanaba	Green Bay, Wis. Marquette, Mich. Menominee, Mich.
Lansing	Chicago, Ill. Cleveland, Ohio Flint, Mich.	Flint	Saginaw
Muskegon	Chicago, Ill.	Grand Rapids	Green Bay, Wis. Lansing, Mich. Manistee, Mich. Manitowoc, Wis. Muskegon, Mich. South Bend, Ind. Traverse City, Mich.
Saginaw	Chicago, Ill. Cleveland, Ohio Flint, Mich. Grand Rapids, Mich.		

MICHIGAN (Cont'd.)

Regional Carriers
Subsidized Services

Hancock	Escanaba, Mich. Iron Mountain, Mich. Rhineland, Wis.
Iron Mountain	Green Bay, Wis. Ironwood, Mich. Menominee, Mich.
Ironwood	Duluth, Minn. Menominee, Mich. Rhineland, Wis.
Kalamazoo	Jackson, Mich. South Bend, Ind.
Lansing	Muskegon, Mich.
Menominee	Green Bay, Wis. Rhineland, Wis.
Muskegon	Milwaukee, Wis.
Pellston	Sault Ste. Marie, Mich. Traverse City, Mich.
Traverse City	Chicago, Ill. Sault Ste. Marie, Mich.



MINNESOTA

Trunk Carriers
Unprofitable Services

Minneapolis

Cincinnati, Ohio
Des Moines, Iowa
Fargo, N. Dak.
Grand Forks, N. Dak.
Jamestown, N. Dak.
Madison, Wis.
San Diego, Calif.
Sioux Falls, S. Dak.

Rochester

Madison, Wis.
Milwaukee, Wis.
Minneapolis, Minn.

Regional Carriers
Subsidized Services

Bemidji

Brainerd, Minn.
Thief River Falls, Minn.

Brainerd

Minneapolis, Minn.

Duluth

Eau Claire, Wis.
Green Bay, Wis.
Hibbing, Minn.
Ironwood, Mich.
Madison, Wis.
Wausau, Wis.

Fairmont

Mankato, Minn.
Worthington, Minn.

Hibbing

Minneapolis, Minn.

International Falls

Duluth, Minn.
Hibbing, Minn.

Mankato

Minneapolis, Minn.

Minneapolis

Eau Claire, Wis.
Grand Forks, N. Dak.
Watertown, S. Dak.
Wausau, Wis.

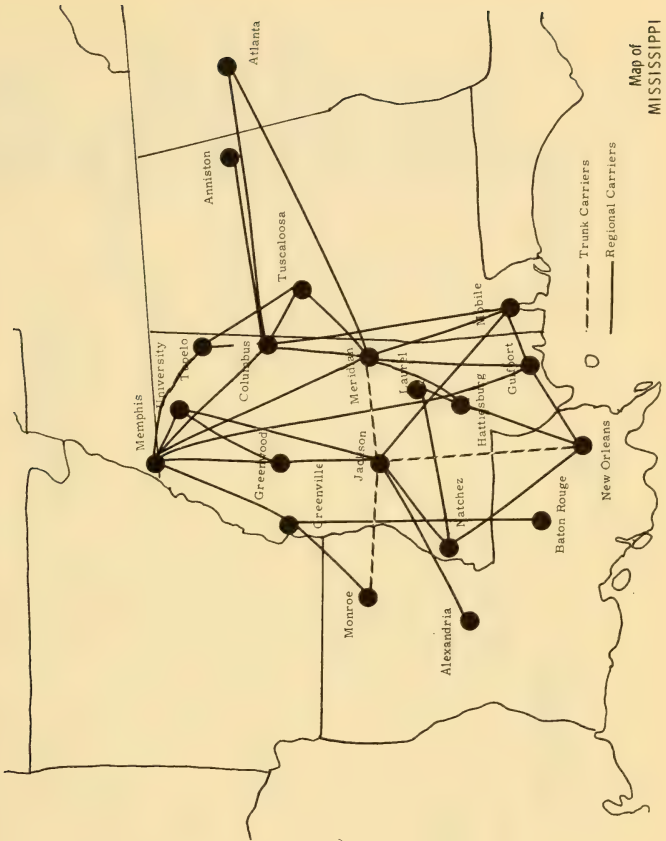
Rochester

Cedar Rapids, Iowa
Waterloo, Iowa

MINNESOTA (Cont'd.)

Regional Carriers
Subsidized Services

Thief River Falls	Grand Fords, N. Dak.
Worthington	Sioux Falls, S. Dak.



MISSISSIPPI

Trunk Carriers
Unprofitable Services

Jackson Monroe, La.
 New Orleans, La.

Meridian Jackson, Miss.

Regional Carriers
Subsidized Services

Columbus Anniston, Ala.
 Atlanta, Ga.
 Memphis, Tenn.
 Meridian, Miss.
 Mobile, Ala.
 Tupelo, Miss.
 Tuscaloosa, Ala.

Greenville Baton Rouge, La.
 Memphis, Tenn.
 Monroe, La.

Greenwood Jackson, Miss.
 Memphis, Tenn.

Gulfport/Biloxi New Orleans, La.
 Memphis, Tenn.
 Mobile, Ala.

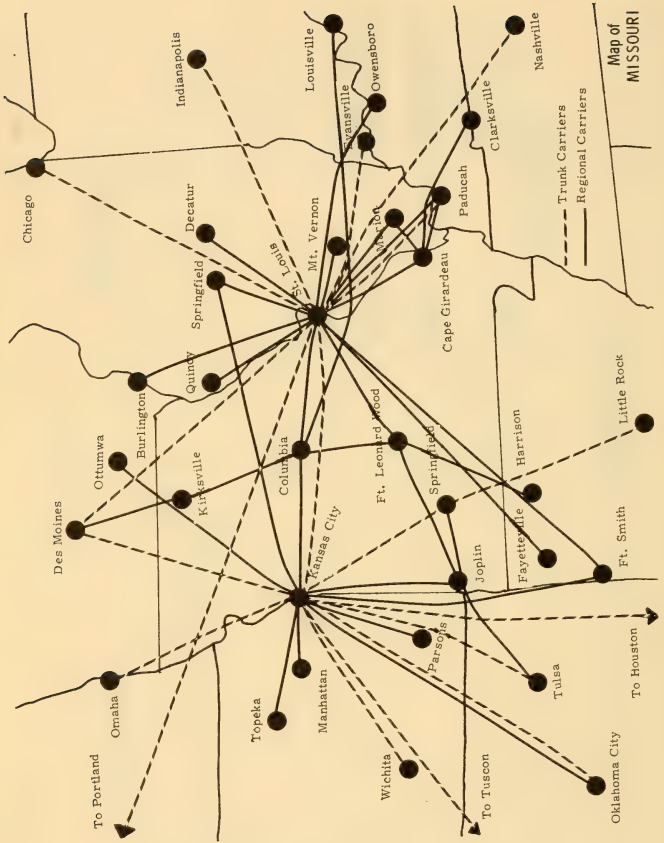
Hattiesburg Laurel, Miss.
 Meridian, Miss.
 New Orleans, La.

Jackson Alexandria, La.
 Mobile, Ala.

Meridian Atlanta, Ga.
 Gulfport/Biloxi, Miss.
 Memphis, Tenn.
 Mobile, Ala.
 Tuscaloosa, Ala.

MISSISSIPPI (Cont'd.)

<u>Regional Carriers Subsidized Services</u>	
Natchez	Jackson, Miss. Laurel, Miss. New Orleans, La.
Tupelo	Memphis, Tenn. Tuscaloosa, Ala.
University	Greenwood, Miss. Jackson, Miss. Memphis, Tenn.



MISSOURI

Trunk Carriers
Unprofitable Services

Kansas City

Des Moines, Iowa
Houston, Tex.
Oklahoma City, Okla.
Omaha, Nebr.
Springfield, Mo.
St. Louis, Mo.
Tucson, Ariz.
Tulsa, Okla.
Wichita, Kans.

St. Louis

Chicago, Ill.
Des Moines, Iowa
Evansville, Ind.
Indianapolis, Ind.
Nashville, Tenn.
Paducah, Ky.
Portland, Oreg.

Springfield

Little Rock, Ark.

Regional Carriers
Subsidized Services

Cape Girardeau

Clarkesville, Tenn.
Marion, Ill.
Paducah, Ky.

Columbia

Ft. Leonard Wood, Mo.
Kirkville, Mo.
Louisville, Ky.
St. Louis, Mo.

Ft. Leonard Wood

Harrison, Ark.
St. Louis, Mo.

Joplin

Ft. Leonard Wood, Mo.
Springfield, Mo.
Tulsa, Okla.

Kansas City

Columbia, Mo.
Ft. Smith, Ark.
Joplin, Mo.
Manhattan, Kan.
Oklahoma City, Okla.
Ottumwa, Iowa
Parsons, Kan.
Springfield, Ill.
Topeka, Kan.

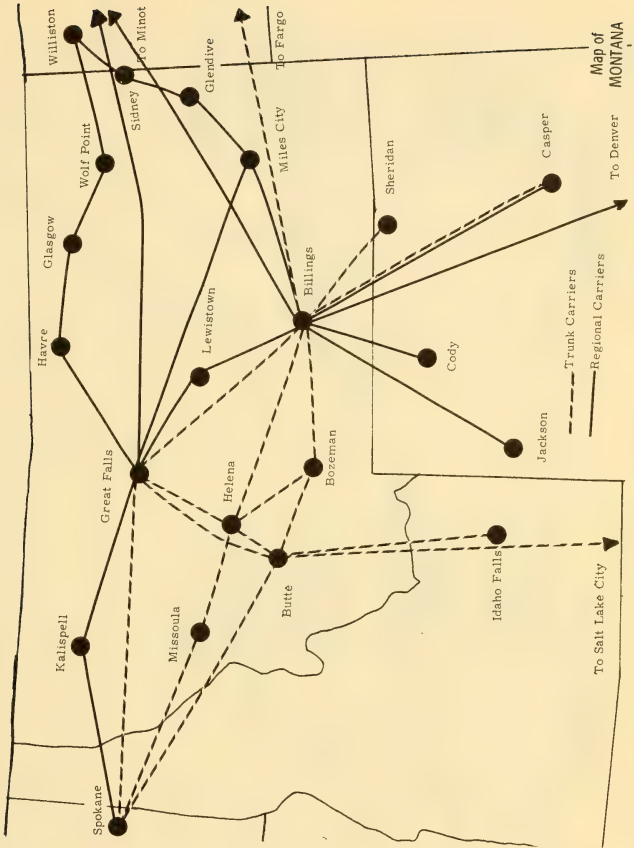
Kirksville

Des Moines, Iowa

MISSOURI (Cont'd.)

Regional Carriers
Subsidized Services

St. Louis	Burlington, Iowa
	Cape Girardeau, Mo.
	Decatur, Ill.
	Fayetteville, Ark.
	Ft. Smith, Ark.
	Marion, Ill.
	Mt. Vernon, Ill.
	Owensboro, Ky.
	Paducah, Ky.
	Quincy, Ill.
	Springfield, Ill.

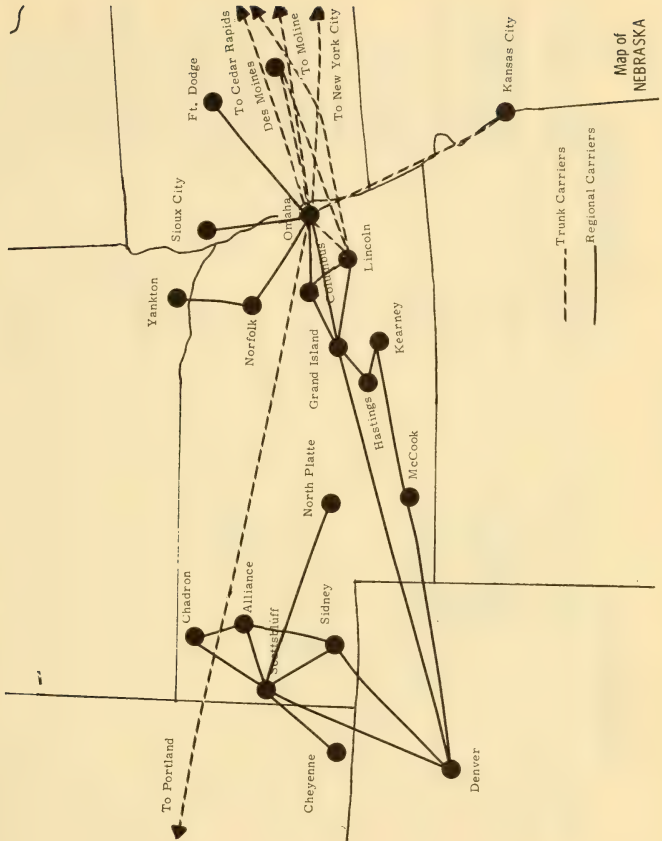


Trunk Carriers
Unprofitable Services

Billings	Bozeman, Mont. Casper, Wyo. Fargo, N. Dak. Sheridan, Wyo.
Butte	Bozeman, Mont. Helena, Mont. Idaho Falls, Idaho Salt Lake City, Utah Spokane, Wash.
Great Falls	Billings, Mont. Butte, Mont. Helena, Mont. Spokane, Wash.
Helena	Billings, Mont. Bozeman, Mont. Missoula, Mont.
Missoula	Spokane, Wash.

Regional Carriers
Subsidized Services

Billings	Casper, Wyo. Cody, Wyo. Denver, Colo. Jackson, Wyo. Lewistown, Mont. Miles City, Mont. Minot, N. Dak.
Glasgow	Wolf Point, Mont.
Glendive	Miles City, Mont. Sidney, Mont.
Great Falls	Havre, Mont. Lewistown, Mont. Minot, N. Dak.
Havre	Glasgow, Mont.
Kalispell	Great Falls, Mont. Spokane, Wash.
Sidney	Williston, N. Dak.



Map of
NEBRASKA

Trunk Carriers
Unprofitable Services

Lincoln

Cedar Rapids, Iowa
Des Moines, Iowa

Omaha

Cedar Rapids, Iowa
Des Moines, Iowa
Kansas City, Mo.
Lincoln, Neb.
Moline, Ill.
New York, N. Y.
Portland, Ore.

Regional Carriers
Subsidized Services

Alliance

Chadron, Neb.
Sidney, Neb.

Columbus

Grand Island, Neb.
Lincoln, Neb.
Omaha, Neb.

Hastings

Grand Island, Neb.

Grand Island

Lincoln, Neb.
Omaha, Neb.
Denver, Colo.

Kearney

Hastings, Neb.

McCook

Denver, Colo.
Kearney, Neb.

Norfolk

Omaha, Neb.
Yankton, S. D.

Omaha

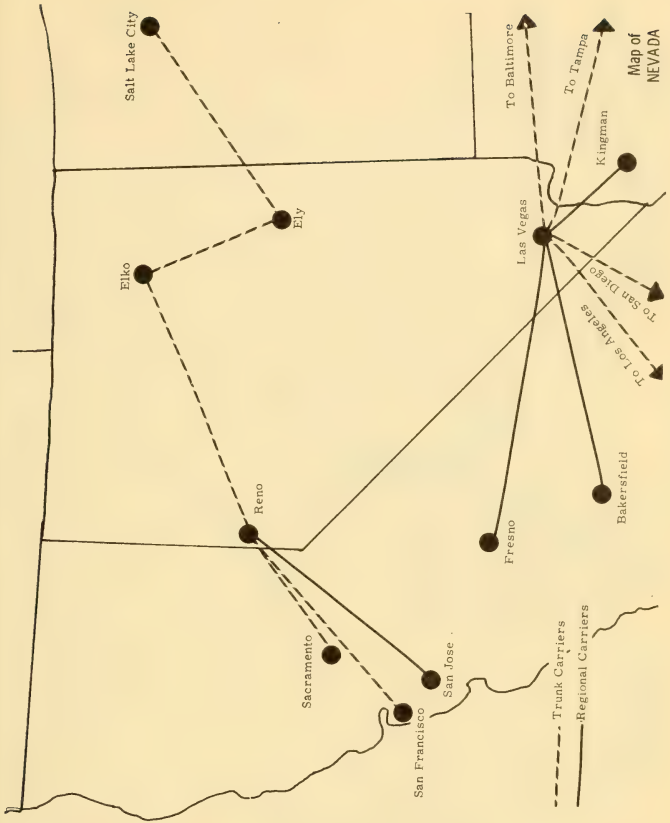
Ft. Dodge, Iowa
Sioux City, Iowa

Scottsbluff

Alliance, Neb.
Chadron, Neb.
Cheyenne, Wyo.
Denver, Colo.
North Platte, Neb.
Sidney, Neb.

Sidney

Denver, Colo.

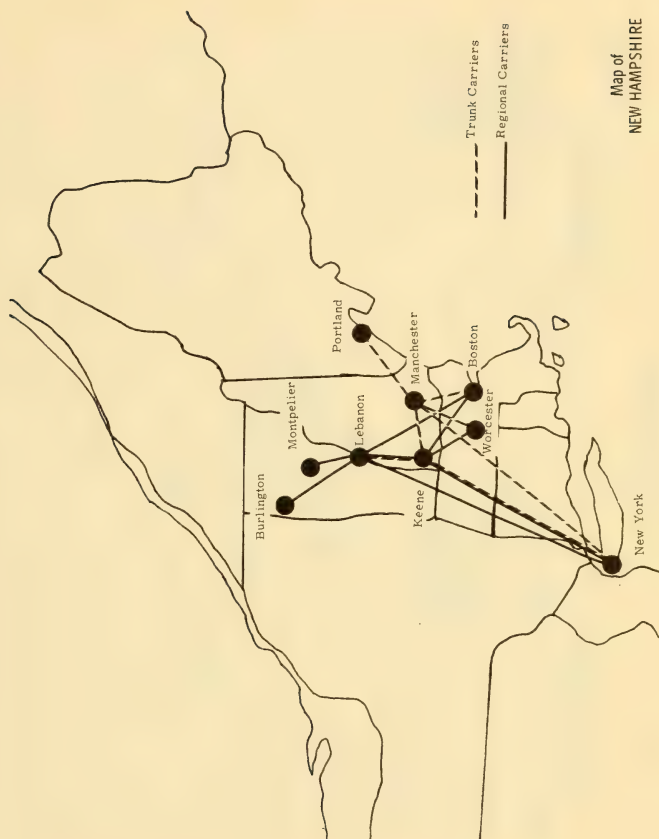


Trunk Carriers
Unprofitable Services

Ely	Elko, Nev. Salt Lake City, Utah
Las Vegas	Baltimore, Md. Los Angeles, Calif. San Diego, Calif. Tampa, Fla.
Reno	Elko, Nev. Sacramento, Calif. San Francisco, Calif.

Regional Carriers
Subsidized Services

Las Vegas	Bakersfield, Calif. Fresno, Calif. Kingman, Ariz.
Reno	San Jose, Calif.



Map of
NEW HAMPSHIRE

NEW HAMPSHIRE

Trunk Carriers
Unprofitable Services

Keene

Lebanon, Vt.
New York, N. Y.

Manchester

Boston, Mass.
Keene, N. H.
New York, N. Y.
Portland, Maine
Worcester, Mass.

Regional Carriers
Subsidized Services

Keene

Boston, Mass.
Lebanon, N. H.
New York, N. Y.
Worcester, Mass.

Lebanon

Burlington, Vt.
Montpelier, Vt.
New York, N. Y.
Boston, Mass.



Map of
NEW JERSEY

Trunk Carriers
Unprofitable Services

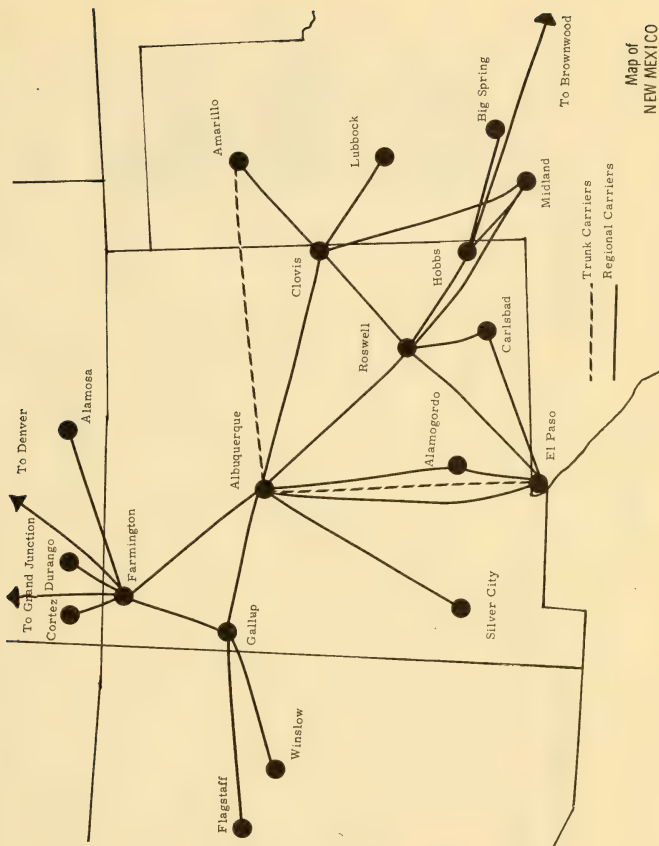
Newark/New York City

Akron, Ohio
Albany, N. Y.
Baltimore, Md.
Ft. Wayne, Ind.
Hartford, Conn.
Keene, N. H.
Lebanon, Vt.
Manchester, N. H.
New Bedford, Mass.
Omaha, Nebr.
Philadelphia, Pa.
Providence, R. I.
Tulsa, Okla.
Worcester, Mass.

Regional Carriers
Subsidized Services

New York City/Newark

Binghamton, N. Y.
Bradford, Pa.
Elmira, N. Y.
Harrisburg, Pa.
Ithaca, N. Y.
Jamestown, N. Y.
Utica, N. Y.
Williamsport, Pa.



NEW MEXICO

Trunk Carriers
Unprofitable Services

Albuquerque Amarillo, Tex.
 El Paso, Tex.

Regional Carriers
Subsidized Services

Alamagordo	El Paso, Tex.
Albuquerque	Alamagordo, N. M. El Paso, Tex. Gallup, N. M. Silver City, N. M.
Carlsbad	Roswell, N. M.
Clovis	Albuquerque, N. M. Amarillo, Tex. Lubbock, Tex. Midland/Odessa, Tex.
Farmington	Alamosa, Colo. Albuquerque, N. M. Cortez, Colo. Denver, Colo. Durango, Colo. Gallup, N. M. Grand Junction, Colo.
Gallup	Flagstaff, Ariz. Winslow, Ariz.

NEW MEXICO (Cont'd)

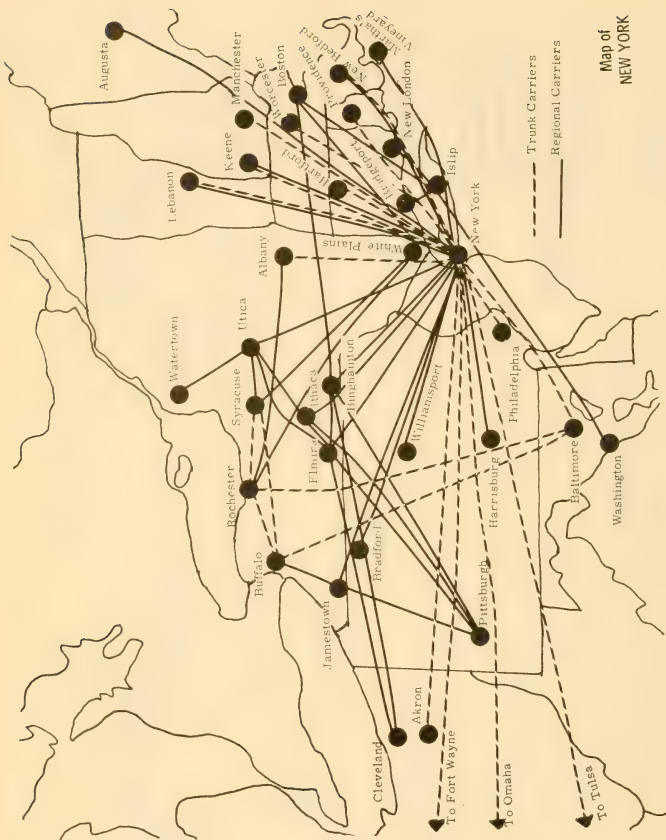
Regional Carriers
Subsidized Services

Hobbs

Big Spring, Tex.
Brownwood, Tex.
Midland, Tex.
Roswell, N. M.

Roswell

Albuquerque, N. M.
Clovis, N. M.
El Paso, Tex.
Midland, Tex.



NEW YORK

Trunk Carriers
Unprofitable Services

Buffalo

Baltimore, Md.
Rochester, N. Y.
Syracuse, N. Y.

New York City

Akron, Ohio
Albany, N. Y.
Baltimore, Md.
Ft. Wayne, Ind.
Hartford, Conn.
Keene, N. H.
Lebanon, Vt.
Manchester, N. H.
New Bedford, Mass.
Omaha, Nebr.
Philadelphia, Pa.
Providence, R. I.
Tulsa, Okla.
Worcester, Mass.

Rochester

Baltimore, Md.
Syracuse, N. Y.

Regional Carriers
Subsidized Services

Albany

Rochester, N. Y.

Binghamton

Boston, Mass.
Cleveland, Ohio
Elmira, N. Y.
New York City/Newark, N. J.
Pittsburgh, Pa.

Buffalo

Jamestown, N. Y.

Elmira

Cleveland, Ohio
New York City/Newark, N. J.
Pittsburgh, Pa.
Utica, N. Y.

Islip

Boston, Mass.
Bridgeport, Conn.
New London, Conn.
Washington, D. C.

Ithaca

Elmira, N. Y.
New York City/Newark, N. J.
Pittsburgh, Pa.
Utica, N. Y.

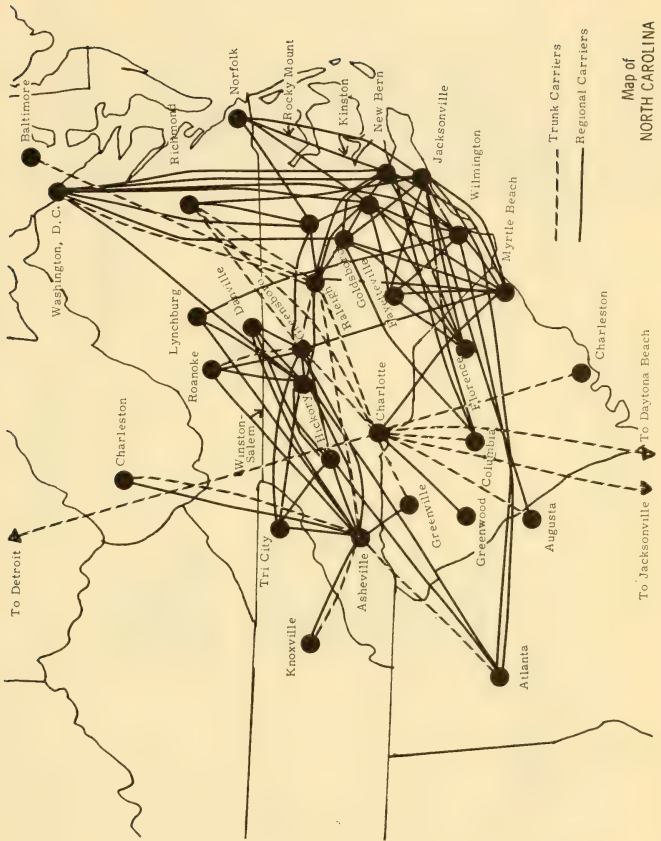
Jamestown

New York City/Newark, N. J.
Pittsburgh, Pa.

NEW YORK (Cont'd.)

Regional Carriers
Subsidized Services

New York City	Augusta, Maine Keene, N. H. Lebanon, N. H. Martha's Vineyard, Mass. New Bedford, Mass.
New York City/Newark	Bradford, Pa. Harrisburg, Pa. Williamsport, Pa.
Syracuse	Utica, N. Y.
Utica	New York City/Newark, N. J. Watertown, N. Y.
White Plains	Boston, Mass. Rochester, N. Y. Syracuse, N. Y.



NORTH CAROLINA

Trunk Carriers
Unprofitable Services

Regional Carriers
Subsidized Services

Asheville	Atlanta, Ga. Charleston, W. Va. Knoxville, Tenn.	Asheville	Charleston, W. Va. Danville, Va. Greenville, S. C. Hickory, N. C. Knoxville, Tenn. Lynchburg, Va. Roanoke, Va. Tri City Airport, Tenn.
Charlotte	Augusta, Ga. Charleston, S. C. Columbia, S. C. Daytona Beach, Fla. Detroit, Mich. Greensboro, N. C. Jacksonville, Fla. Richmond, Va. Greenville, S. C. Richmond, Va. Roanoke, Va.	Charlotte	Greenwood, S. C. Myrtle Beach, S. C.
Greensboro		Fayetteville	Florence, S. C. Kinston, N. C. Myrtle Beach, S. C.
Raleigh	Asheville, N. C. Baltimore, Md. Charlotte, N. C. Greensboro, N. C. Richmond, Va. Washington, D. C.	Goldsboro	Columbia, S. C. Florence, S. C. Jacksonville, N. C. Myrtle Beach, S. C. Raleigh, N. C. Washington, D. C.
		Greensboro/Hot Point	Danville, Va. Myrtle Beach, S. C. Roanoke, Va. Tri City Airport, Tenn.

NORTH CAROLINA

Regional Carriers
Subsidized Services

Hickory

Atlanta, Ga.
Danville, Va.
Winston-Salem, N. C.
Tri City Airport, Tenn.

Jacksonville

Atlanta, Ga.
Augusta, Ga.
Columbia, S. C.
Fayetteville, N. C.
Florence, S. C.
Myrtle Beach, S. C.
Norfolk, Va.
Richmond, Va.
Washington, D. C.
Wilmington, N. C.

Kinston

Florence, S. C.
Goldsboro, N. C.
Myrtle Beach, S. C.
New Bern, N. C.
Norfolk, Va.
Raleigh, N. C.
Washington, D. C.

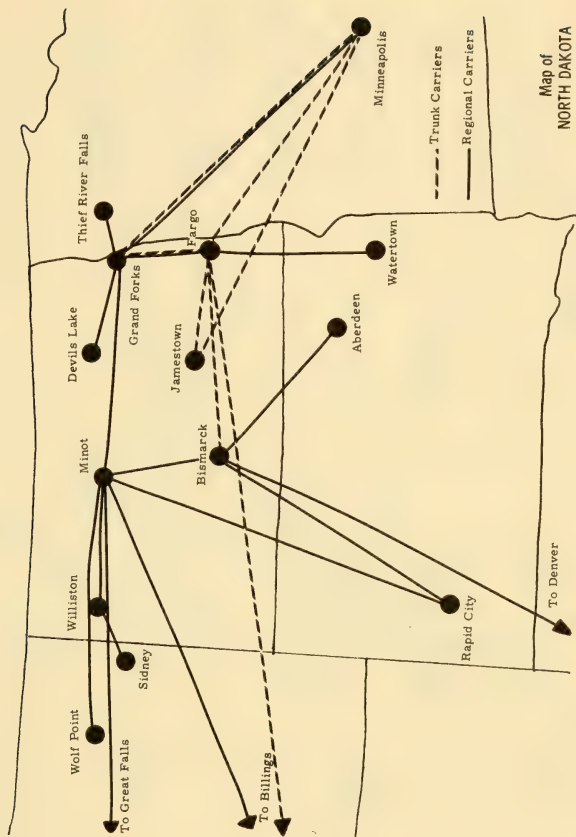
New Bern

Columbia, S. C.
Florence, S. C.
Goldsboro, N. C.
Myrtle Beach, S. C.
Norfolk, Va.
Washington, D. C.

NORTH CAROLINA

Regional Carriers
Subsidized Services

Raleigh	Myrtle Beach, S. C. New Bern, N. C. Rocky Mount, N. C.
Rocky Mount	Greensboro, N. C. Kinston, N. C. Norfolk, Va. Richmond, Va.
Wilmington	Atlanta, Ga. Fayetteville, N. C. Kinston, N. C. Lynchburg, Va. Myrtle Beach, S. C. New Bern, N. C. Washington, D. C.
Winston-Salem	Asheville, N. C. Atlanta, Ga. Danville, Va. Greensboro, N. C. Lynchburg, Va. Raleigh, N. C. Roanoke, Va. Tri City Airport, Tenn. Washington, D. C.

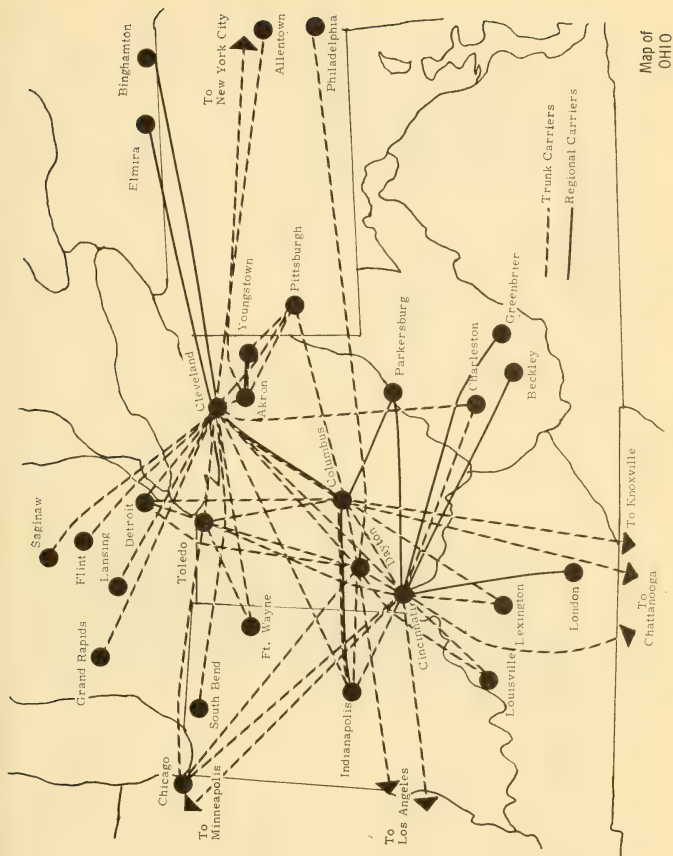


NORTH DAKOTA

Trunk Carriers Unprofitable Services

Regional Carriers Subsidized Services

Bismarck	Jamestown, N. D. Fargo, N. D.	Bismarck	Aberdeen, S. D. Denver, Colo. Minot, N. D. Rapid City, S. D.
Fargo	Billings, Mont. Minneapolis, Minn. Grand Forks, N. D.	Devils Lake	Grand Forks, N. D.
Grand Forks	Minneapolis, Minn.	Fargo	Grand Forks, N. D. Watertown, S. D.
Jamestown	Minneapolis, Minn.	Grand Forks	Minneapolis, Minn. Minot, N. D. Thief River Falls, Minn.
		Minot	Billings, Mont. Great Falls, Mont. Rapid City, S. D.
		Williston	Minot, N. D. Sidney, Mont. Wolf Point, Mont.



OHIOTrunk Carriers
Unprofitable Services

Akron	Cleveland, Ohio New York, N. Y. Pittsburgh, Pa. Youngstown, Ohio
Cincinnati	Charlestown, W. Va. Chattanooga, Tenn. Chicago, Ill. Dayton, Ohio Indianapolis, Ind. Lexington, Ky. Los Angeles, Calif. Louisville, Ky. Minneapolis, Minn.
Cleveland	Allentown, Pa. Charleston, W. Va. Cincinnati, Ohio Columbus, Ohio Dayton, Ohio Detroit, Mich. Flint, Mich. Ft. Wayne, Ind. Grand Rapids, Mich. Indianapolis, Ind. Lansing, Mich. Pittsburgh, Pa. Saginaw, Mich. South Bend, Ind.

Regional Carriers
Subsidized Services

Akron	Youngstown, Ohio
Cincinnati	Beckley, W. Va. Greenbrier, W. Va. London, Ky. Parkersburg, W. Va.
Cleveland	Binghampton, N. Y. Elmira, N. Y.
Columbus	Cleveland, Ohio Indianapolis, Ind. Parkersburg, W. Va.

OHIO

Trunk Carriers
Unprofitable Services

Columbus

Chattanooga, Tenn.
 Cincinnati, Ohio
 Dayton, Ohio
 Detroit, Mich.
 Indianapolis, Ind.
 Knoxville, Tenn.
 Lexington, Ky.
 Pittsburgh, Pa.

Dayton

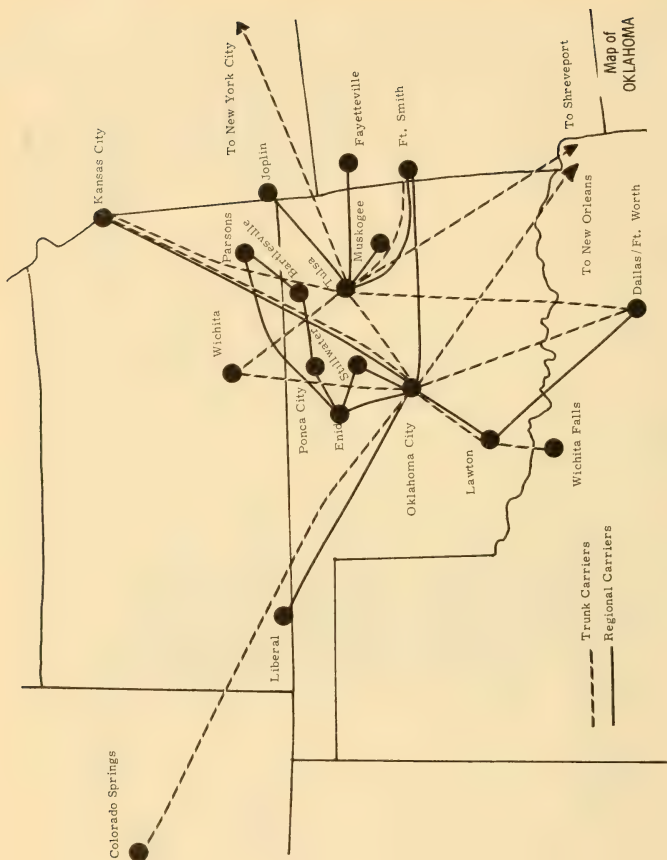
Chicago, Ill.
 Detroit, Mich.
 Indianapolis, Ind.
 Los Angeles, Calif.
 Louisville, Ky.
 Philadelphia, Pa.

Toledo

Chicago, Ill.
 Cincinnati, Ohio
 Cleveland, Ohio
 Columbus, Ohio
 Dayton, Ohio
 Detroit, Mich.
 Ft. Wayne, Ind.

Youngstown

Pittsburgh, Pa.



OKLAHOMATrunk Carriers
Unprofitable Services

Lawton Wichita Falls, Tex.
 Colorado Springs, Colo.
 Dallas, Tex.
 Oklahoma City Kansas City, Mo.
 Lawton, Okla.
 New Orleans, La.
 Tulsa, Okla.
 Wichita, Kan.

 Dallas, Tex.
 Ft. Smith, Ark.
 Kansas City, Mo.
 New York, N.Y.
 Shreveport, La.
 Wichita, Kan.

Tulsa

Regional Carriers
Subsidized Services

Bartlesville Parsons, Kan.
 Ponca City, Okla.

 Parsons, Kan.
 Ponca City, Okla.
 Stillwater, Okla.

 Dallas, Tex.

 Enid, Okla.
 Ft. Smith, Ark.
 Kansas City, Mo.
 Lawton, Okla.
 Liberal, Kan.
 Stillwater, Okla.

 Fayetteville, Ark.
 Ft. Smith, Ark.
 Joplin, Mo.
 Muskogee, Okla.

Tulsa

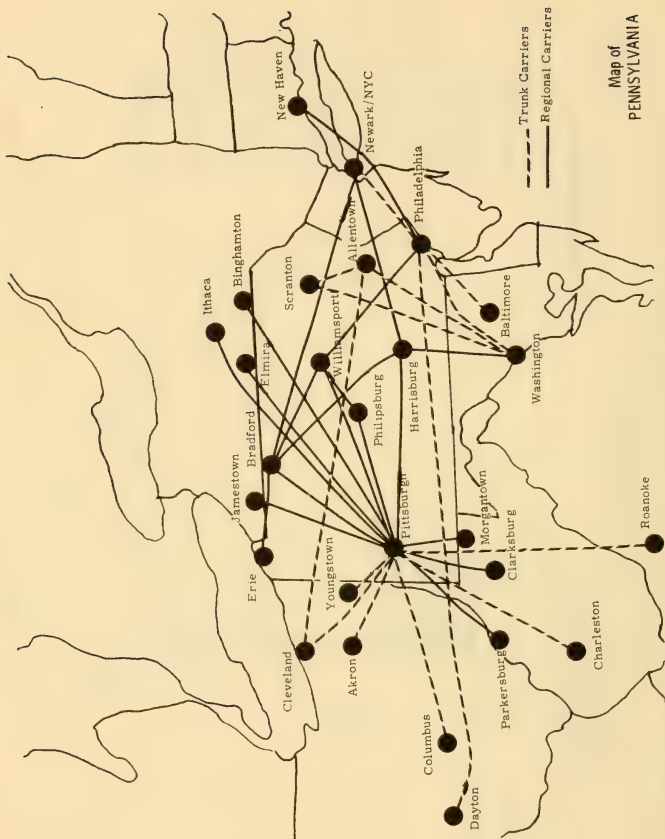


Trunk Carriers
Unprofitable Services

Eugene Medford, Oreg.
Pendleton Boise, Idaho
Portland Eugene, Oreg.
Omaha, Nebr.
Pendleton, Oreg.
St. Louis, Mo.
Salem, Oreg.
Seattle, Wash.

Regional Carriers
Subsidized Services

Astoria Hoquiam, Wash.
Portland, Oreg.
Seattle, Wash.
Eugene Eureka, Calif.
Medford, Oreg.
Pasco, Wash.
Portland, Oreg.
San Francisco, Calif.
Yakima, Wash.
Klamath Falls Portland, Oreg.
Redding, Calif.
Redmond, Oreg.
Sacramento, Calif.
Medford Eureka, Calif.
Portland, Oreg.
North Bend Crescent City, Calif.
Portland, Oreg.
Portland Pasco, Wash.
Yakima, Wash.



Map of
PENNSYLVANIA

Trunk Carriers
Unprofitable Services

Allentown

Cleveland, Ohio
Scranton, Pa.
Washington, D. C.

Philadelphia

Baltimore, Md.
Dayton, Ohio
New York, N. Y.
Washington, D. C.

Pittsburgh

Akron, Ohio
Charleston, W. Va.
Cleveland, Ohio
Columbus, Ohio
Roanoke, Va.
Youngstown, Ohio

Scranton

Washington, D. C.

Regional Carriers
Subsidized Services

Bradford

Erie, Pa.
Newark, N. J.
Williamsport, Pa.

Harrisburg

Bradford, Pa.
Newark, N. J./NYC
Pittsburgh, Pa.
Washington, D. C.

Philadelphia

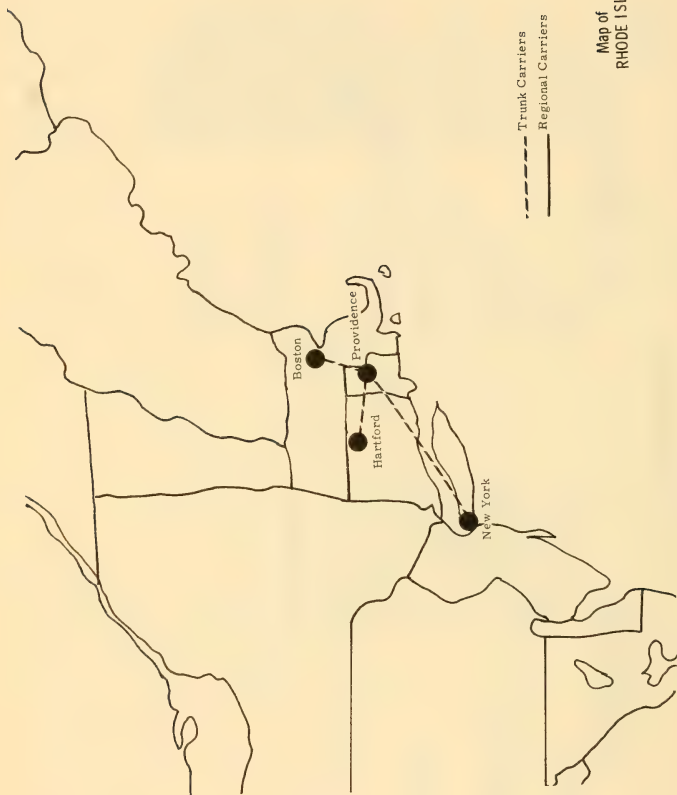
New Haven, Conn.

Pittsburgh

Binghamton, N. Y.
Bradford, Pa.
Clarksburg, W. Va.
Elmira, N. Y.
Ithaca, N. Y.
Jamestown, N. Y.
Morgantown, W. Va.
Parkersburg, W. Va.
Phillipsburg, Pa.

Williamsport

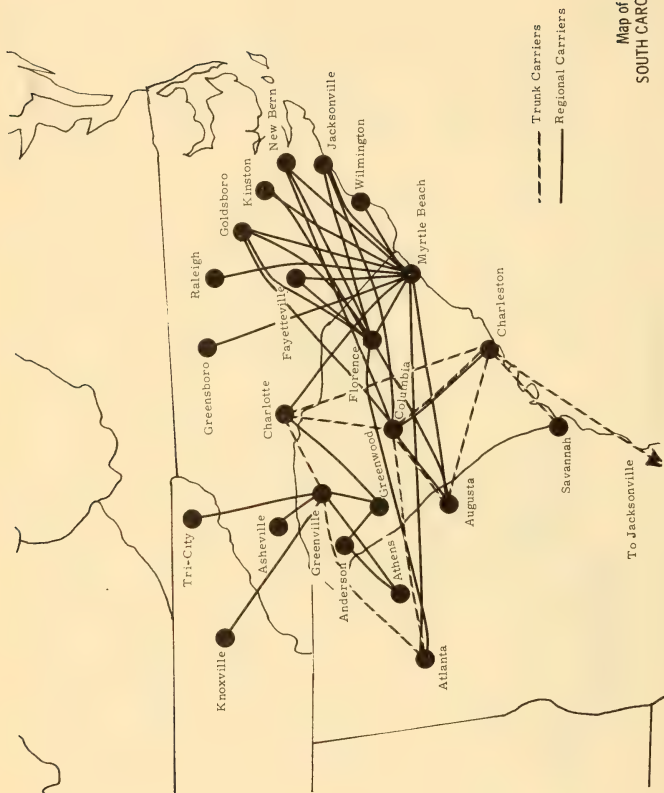
Philadelphia, Pa.
Phillipsburg, Pa.
Pittsburgh, Pa.



Trunk Carriers
Unprofitable Service

Providence

Boston, Mass.
Hartford, Conn.
New York, N. Y.



Map of
SOUTH CAROLINA

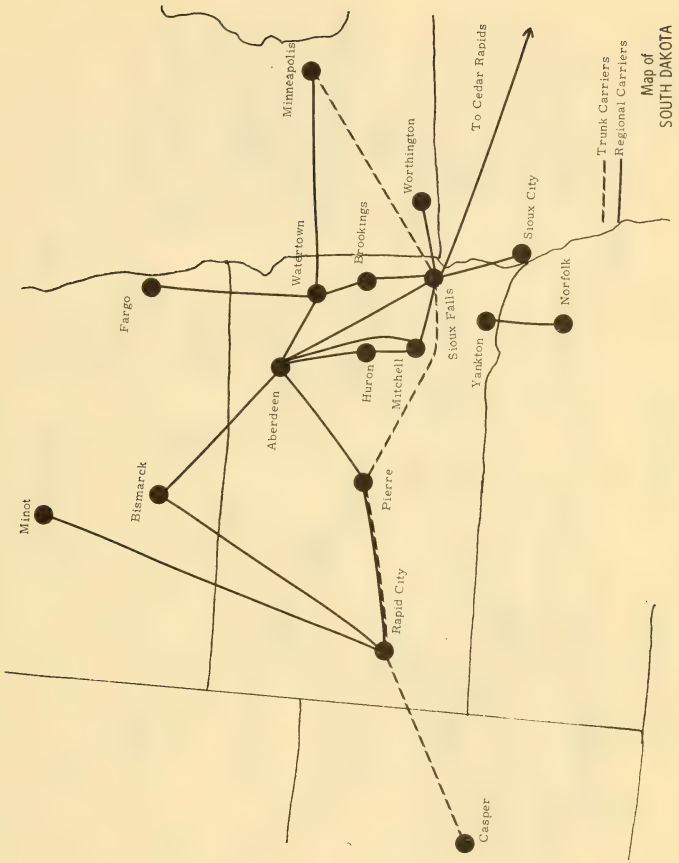
SOUTH CAROLINA

<u>Trunk Carriers</u> <u>Unprofitable Services</u>		<u>Regional Carriers</u> <u>Subsidized Services</u>	
Charleston	Augusta, Ga. Charlotte, N. C. Jacksonville, Fla. Savannah, Ga.	Anderson	Athens, Ga. Greenwood, S. C.
Columbia	Atlanta, Ga. Augusta, Ga. Charleston, S. C. Charlotte, N. C.	Columbia	Augusta, Ga. Charleston, S. C. Goldsboro, N. C. Jacksonville, N. C. New Bern, N. C.
Greenville	Atlanta, Ga. Charlotte, N. C.	Florence	Atlanta, Ga. Augusta, Ga. Fayetteville, N. C. Goldsboro, N. C. Jacksonville, N. C. Kinston, N. C. New Bern, N. C.
		Greenville	Asheville, N. C. Athens, Ga. Greenwood, S. C. Knoxville, Tenn. Tri-City, Tenn.
		Greenwood	Charlotte, N. C.

SOUTH CAROLINA (Cont'd.)

Regional Carriers
Subsidized Services

Myrtle Beach	
	Atlanta, Ga.
	Augusta, Ga.
	Charlotte, N. C.
	Fayetteville, N. C.
	Florence, S. C.
	Goldsboro, N. C.
	Greensboro, N. C.
	Jacksonville, N. C.
	Kinston, N. C.
	New Bern, N. C.
	Raleigh, N. C.
	Wilmington, N. C.



Trunk Carriers
Unprofitable Services

Rapid City Casper, Wyo.
 Pierre, S. Dak.

Sioux Falls Minneapolis, Minn.
 Pierre, S. Dak.

Regional Carriers
Subsidized Services

Aberdeen Bismarck, N. Dak.
 Huron, S. Dak.
 Mitchell, S. Dak.
 Pierre, S. Dak.
 Sioux Falls, S. Dak.
 Watertown, S. Dak.

Brookings Sioux Falls, S. Dak.

Huron Mitchell, S. Dak.

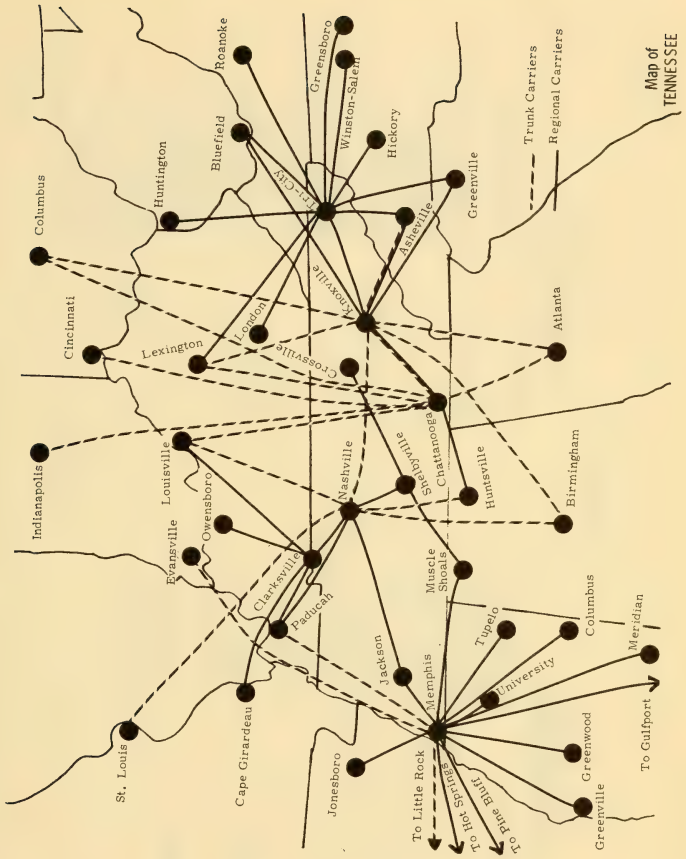
Pierre Rapid City, S. Dak.

Rapid City Bismarck, N. Dak.
 Minot, N. Dak.

Sioux Falls Cedar Rapids, Iowa
 Mitchell, S. Dak.
 Sioux City, Iowa
 Worthington, Minn.

Watertown Brookings, S. Dak.
 Fargo, N. Dak.
 Minneapolis, Minn.

Yankton Norfolk, Nebr.



TENNESSEE.

Trunk Carriers
Unprofitable Services

Chattanooga	Atlanta, Ga. Cincinnati, Ohio Columbus, Ohio Indianapolis, Ind. Lexington, Ky. Louisville, Ky.	Chattanooga	Huntsville, Ala. Knoxville, Tenn.
		Clarksville	Cape Girardeau, Mo. Louisville, Ky. Owensboro, Ky. Paducah, Ky.
Knoxville	Asheville, N. C. Atlanta, Ga. Birmingham, Ala. Chattanooga, Tenn. Columbus, Ohio Lexington, Ky. Nashville, Tenn.	Crossville	Shelbyville, Tenn.
		Knoxville	Asheville, N. C. Bluefield, W. Va. Greenville/Spartanburg, S. C. Tri-City, Tenn.
Memphis	Evansville, Ind. Little Rock, Ark. Paducah, Ky.	Memphis	Columbus, Miss. Greenville, Miss. Greenwood, Miss. Gulfport, Miss Hot Springs, Ark. Jackson, Tenn Jonesboro, Ark. Meridian, Miss. Muscle Shoals, Ala. Pine Bluff, Ark. Tupelo, Miss University, Miss.
Nashville	Birmingham, Ala. Huntsville, Ala. Louisville, Ky. St. Louis, Mo.		

Regional Carriers
Subsidized Services

TENNESSEE (Continued)Regional Carriers
Subsidized Services

Nashville

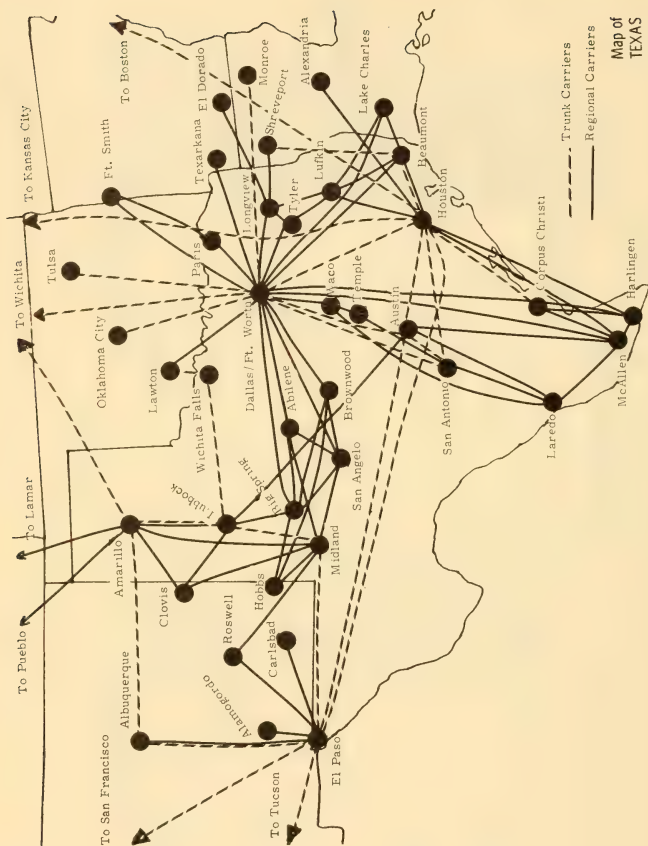
Clarksville, Tenn.
Jackson, Tenn.
Paducah, Ky.

Shelbyville

Muscle Shoals, Ala.
Nashville, Tenn.

Tri-City

Asheville, N. C.
Bluefield, W. Va.
Greensboro, N. C.
Greenville/Spartanburg, S. C.
Hickory, N. C.
Huntington, W. Va.
Lexington, Ky.
London, Ky.
Roanoke, Va.
Winston-Salem, N. C.



TEXAS

Trunk Carriers
Unprofitable Services

Amarillo	Albuquerque, N. M. Lubbock, Texas Wichita, Kansas	Abilene	Big Spring, Texas Dallas/Ft. Worth, Texas Midland/Odessa, Texas San Angelo, Texas
Austin	Dallas, Texas Houston, Texas San Antonio, Texas	Amarillo	Clovis, N. M. Lamar, Colo. Lubbock, Texas Midland, Texas Pueblo, Colo.
Beaumont	Houston, Texas Shreveport, La.		
Corpus Christi	Houston, Texas	Austin	Laredo, Texas Lubbock, Texas McAllen, Texas
Dallas	Houston, Texas Monroe, La. Oklahoma City, Okla. Tulsa, Okla. Wichita, Kansas	Beaumont	Dallas/Ft. Worth, Texas Houston, Texas Lake Charles, La.
El Paso	Albuquerque, N. M. Austin, Texas Houston, Texas Midland, Texas San Francisco, Calif. Tucson, Ariz.	Big Spring	Hobbs, N. M.
		Brownwood	Big Spring, Texas Hobbs, N. M. San Angelo, Texas
Houston	Boston, Mass. Kansas City, Mo.	Corpus Christi	Harlingen, Texas McAllen, Texas
Lubbock	Midland, Texas		

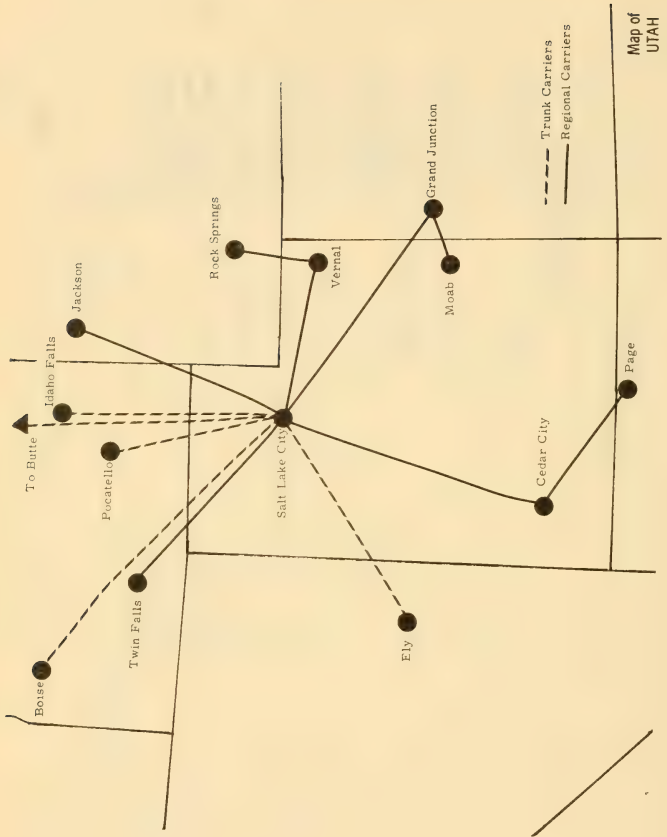
Regional Carriers
Subsidized Services

TEXAS (Continued)

Trunk Carriers <u>Unprofitable Services</u>		Regional Carriers <u>Subsidized Services</u>	
San Antonio	Dallas, Texas Houston, Texas	Dallas /Ft. Worth	Big Spring, Texas Brownwood, Texas Ft. Smith, Ark. Harlingen, Texas Lake Charles, La. Lawton, Okla. Longview, Texas McAllen, Texas Paris, Texas San Angelo, Texas Texarkana, Ark. Tyler, Texas
Wichita Falls	Lawton, Okla. Lubbock, Texas		
		El Paso	Alamogordo, N.M. Albuquerque, N.M. Carlsbad, N.M. Roswell, N.M.
		Harlingen	Houston, Texas McAllen, Texas
		Houston	Alexandria, La. Lufkin, Texas McAllen, Texas
		Laredo	McAllen, Texas San Antonio, Texas
		Longview	El Dorado/Camden, Ark. Shreveport, La. Tyler, Texas

TEXAS (Continued)Regional Carriers
Subsidized Services

Lubbock	Big Spring, Texas Clovis, N.M.
Lufkin	Lake Charles, La. Longview, Texas Tyler, Texas
Midland/Odessa	Clovis, N.M. Hobbs, N.M. Roswell, N.M. San Angelo, Texas
Paris	Ft. Smith, Ark.
San Angelo	Big Spring, Texas
San Antonio	Temple, Texas
Waco	Dallas/Ft. Worth, Texas Laredo, Texas Temple, Texas



UTAH

Trunk Carriers
Unprofitable Services

Salt Lake City Boise, Idaho
 Butte, Mont.
 Ely, Nev.
 Idaho Falls, Idaho
 Pocatello, Idaho

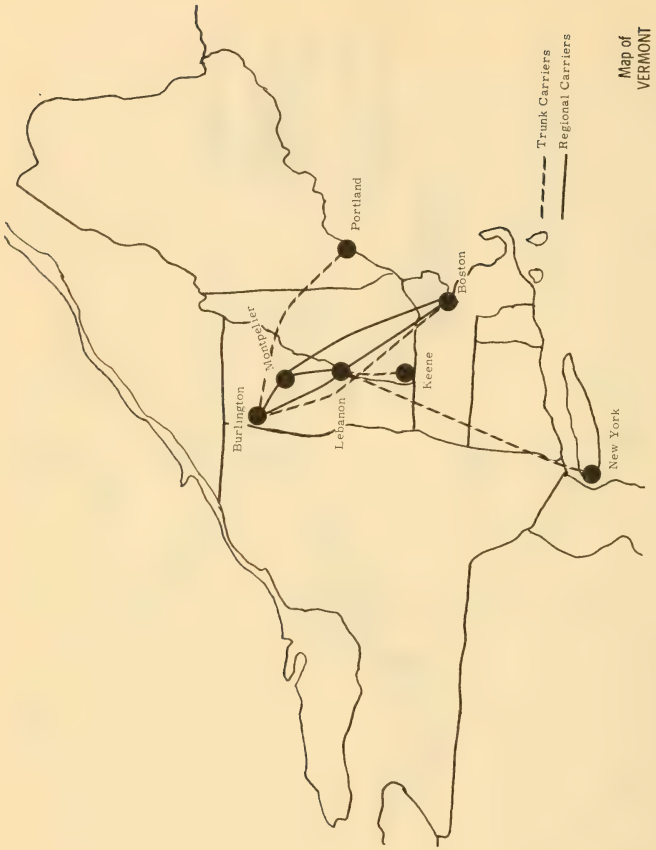
Regional Carriers
Subsidized Services

Cedar City Page, Ariz.
 Salt Lake City, Utah

 Moab Grand Junction, Colo.

 Salt Lake City Grand Junction, Colo.
 Jackson, Wyo.
 Twin Falls, Mont.
 Vernal, Utah

 Vernal Rock Springs, Nebr.



Map of
VERMONT

VERMONT

Trunk Carriers
Unprofitable Services

Burlington

Boston, Mass.
Portland, Maine

Lebanon

Keene, N.H.
New York, N.Y.

Regional Carriers
Subsidized Services

Burlington

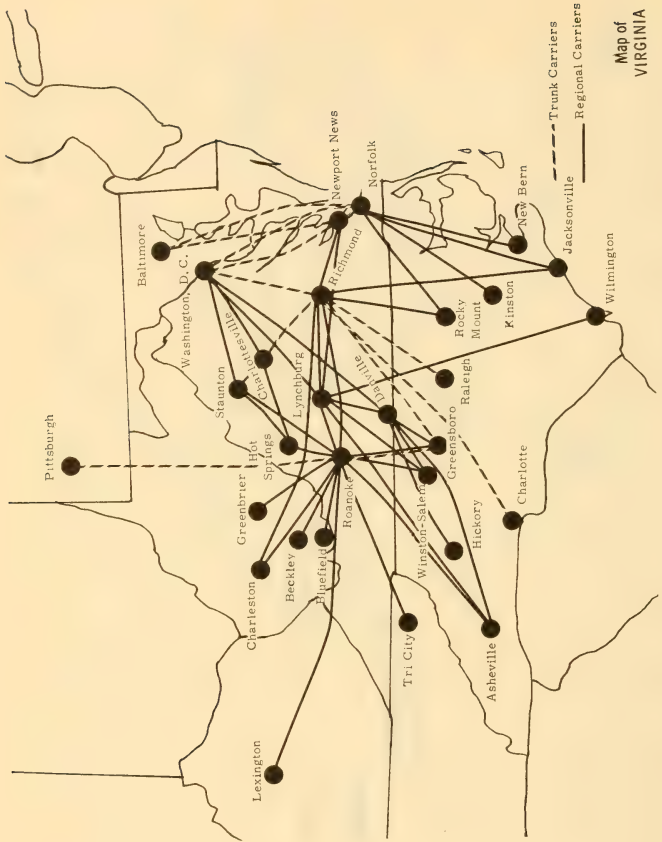
Lebanon, N.H.
Montpelier, Vt.

Lebanon

Boston, Mass.

Montpelier

Boston, Mass.
Lebanon, N.H.



Map of
VIRGINIA

VIRGINIATrunk Carriers
Unprofitable ServicesRegional Carriers
Subsidized Services

Newport News	Baltimore, Md. Norfolk, Va. Washington, D. C.	Charlottesville	Hot Springs, Va. Staunton, Va. Washington, D. C.
Norfolk	Baltimore, Md. Washington, D. C.	Danville	Asheville, N. C. Greensboro/High Point, N. C. Hickory, N. C. Lynchburg, Va. Washington, D. C. Winston-Salem, N. C.
Roanoke	Greensboro, N. C. Pittsburgh, Pa.		
Richmond	Charlotte, N. C. Greensboro, N. C. Raleigh, N. C. Washington, D. C.	Hot Springs	Roanoke, Va. Staunton, Va.
		Lynchburg	Asheville, N. C. Newport News, Va. Richmond, Va. Washington, D. C. Wilmington, N. C. Winston-Salem, N. C.
		Newport News	Richmond, Va.
		Norfolk	Kinston, N. C. Jacksonville, N. C. New Bern, N. C. Rocky Mount, N. C.

VIRGINIA (Continued)

Regional Carriers
Subsidized Services

Richmond

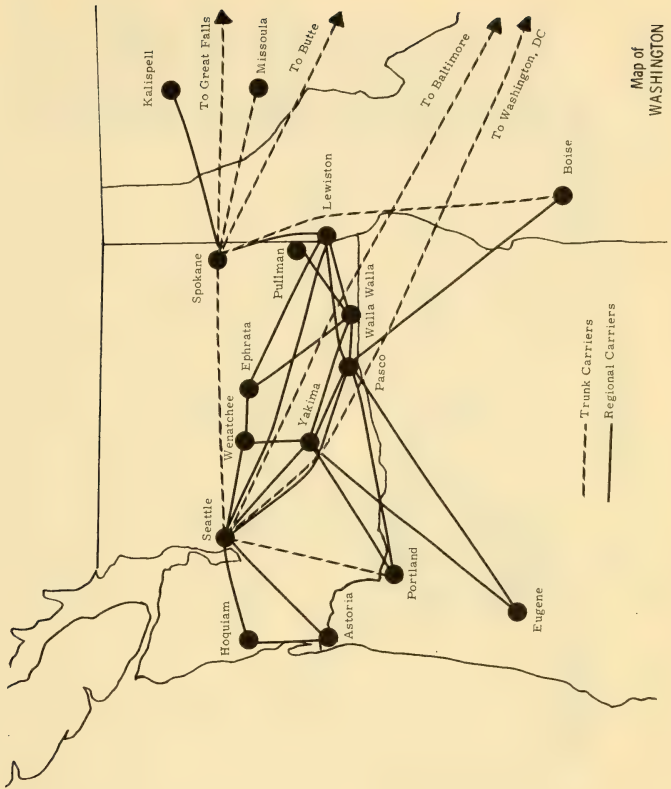
Charleston, W. Va.
Jacksonville, N. C.
Rocky Mount, N. C.

Roanoke

Asheville, N. C.
Beckley, W. Va.
Bluefield, W. Va.
Charleston, W. Va.
Greenbrier, W. Va.
Greensboro, N. C.
Lexington, Ky.
Lynchburg, Va.
Richmond, Va.
Tri City, Tenn.
Winston-Salem, N. C.

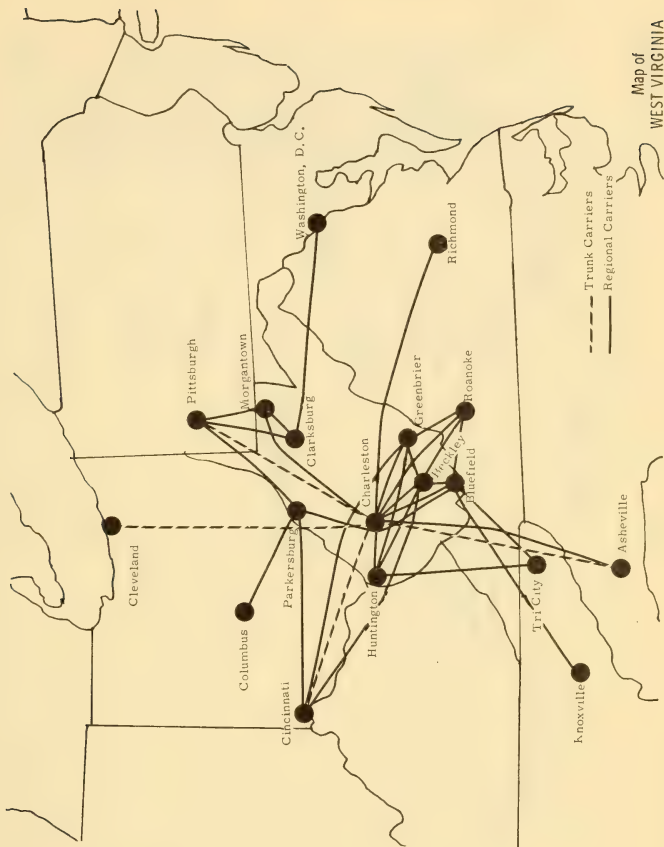
Staunton

Roanoke, Va.
Washington, D. C.

Map of
WASHINGTON

WASHINGTON

<u>Trunk Carriers</u> <u>Unprofitable Services</u>		<u>Regional Carriers</u> <u>Subsidized Services</u>	
Seattle	Baltimore, Md.	Ephrata	Lewiston, Idaho
	Portland, Ore.		Wenatchee, Wash.
	Spokane, Wash.		Astoria, Ore.
	Washington, D. C.		Seattle, Wash.
Spokane	Boise, Idaho	Hoquiam	Boise, Idaho
	Butte, Mont.		Eugene, Ore.
	Great Falls, Mont.		Lewiston, Idaho
	Missoula, Mont.		Portland, Ore.
		Pasco	Seattle, Wash.
			Yakima, Wash.
		Seattle	Astoria, Ore.
			Lewiston, Idaho
			Wenatchee, Wash.
			Yakima, Wash.
		Spokane	Kalispell, Mont.
			Lewiston, Idaho
		Walla Walla	Ephrata, Wash.
			Lewiston, Idaho
			Pasco, Wash.
			Pullman, Wash.
		Yakima	Yakima, Wash.
			Eugene, Ore.
			Portland, Ore.
			Wenatchee, Wash.



Map of
WEST VIRGINIA

WEST VIRGINIA

Trunk Carriers
Unprofitable Services

Charleston

Asheville, N.C.
 Cincinnati, Ohio
 Cleveland, Ohio
 Pittsburgh, Pa.

Regional Carriers
Subsidized Services

Beckley

Bluefield, W. Va.
 Cincinnati, Ohio

Bluefield

Charleston, W. Va.
 Knoxville, Tenn.
 Roanoke, Va.
 Tri-City, Tenn.

Charleston

Asheville, N.C.,
 Beckley, W. Va.
 Greenbrier, W. Va.
 Huntington, W. Va.
 Morgantown, W. Va.
 Richmond, Va.
 Roanoke, Va.

Clarksburg

Morgantown, W. Va.
 Pittsburgh, Pa.
 Washington, D.C.

Greenbrier

Beckley, W. Va.
 Cincinnati, Ohio
 Huntington, W. Va.
 Roanoke, Va.

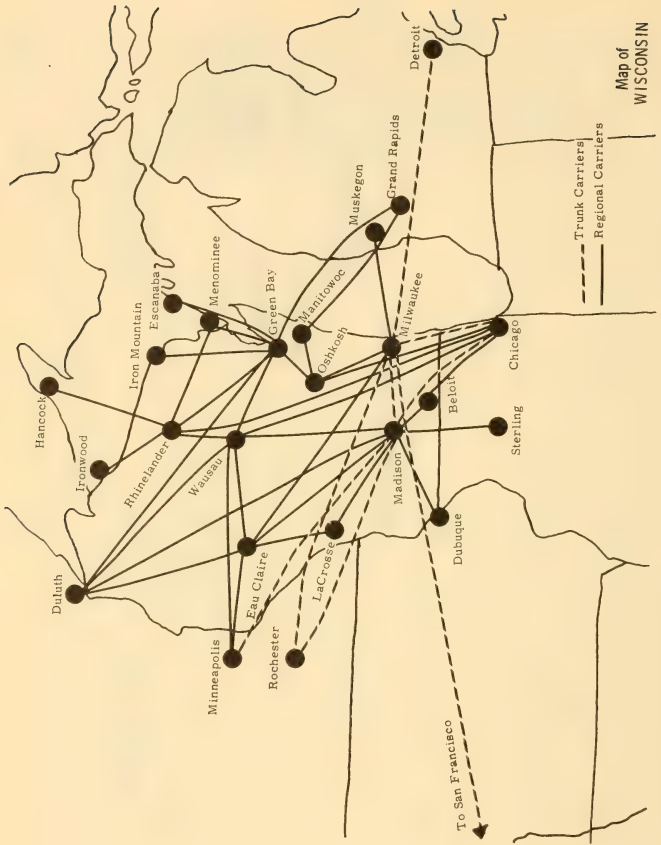
Huntington

Beckley, W. Va.
 Tri-City, Tenn.

WEST VIRGINIA (Cont'd.)

Regional Carriers
Subsidized Services

Morgantown	Pittsburgh, Pa.
Parkersburg	Bluefield, W. Va.
	Cincinnati, Ohio
	Columbus, Ohio
	Pittsburgh, Pa.



WISCONSIN

Trunk Carriers
Unprofitable Services

Madison

Chicago, Ill.
 Minneapolis, Minn.
 Rochester, Minn.

Milwaukee

Chicago, Ill.
 Detroit, Mich.
 Madison, Wis.
 Rochester, Minn.
 San Francisco, Calif.

Regional Carriers
Subsidized Services

Beloit

Chicago, Ill.
 Madison, Wis.

Eau Claire

Duluth, Minn.
 La Crosse, Wis.
 Madison, Wis.
 Milwaukee, Wis.
 Minneapolis, Minn.

Green Bay

Duluth, Minn.
 Escanaba, Mich.
 Grand Rapids, Mich.
 Iron Mountain, Mich.
 Menominee, Mich.
 Rhinelander, Wis.

La Crosse

Madison, Wis.

Madison

Dubuque, Iowa
 Duluth, Minn.
 Sterling/Rock Falls, Ill.

Manitowoc

Grand Rapids, Mich.
 Oshkosh, Wis.

Milwaukee

Muskegon, Mich.
 Oshkosh, Wis.

Oshkosh

Chicago, Ill.
 Green Bay, Wis.

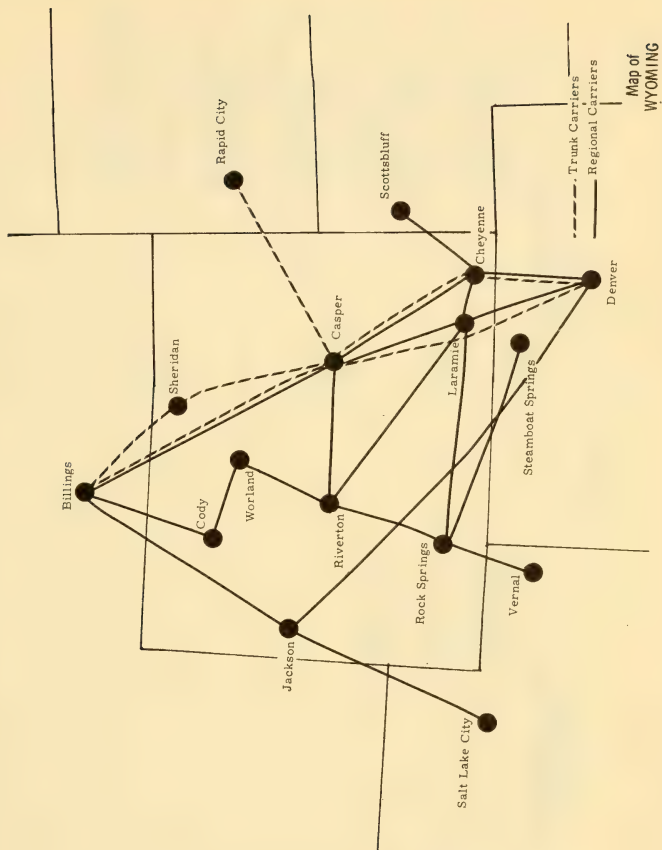
WISCONSINRegional Carriers
Subsidized Services

Rhinelander

Chicago, Ill.
 Hancock, Mich.
 Ironwood, Mich.
 Menominee, Mich.

Wausau

Chicago, Ill.
 Duluth, Minn.
 Eau Claire, Wis.
 Green Bay, Wis.
 Madison, Wis.
 Minneapolis, Minn.
 Rhinelander, Wis.



WYOMINGTrunk CarriersUnprofitable Services

Casper

Billings, Mont.
 Denver, Colo.
 Rapid City, S. Dak.

Cheyenne

Casper, Wyo.
 Denver, Colo.

Sheridan

Billings, Mont.
 Casper, Wyo.

Regional CarriersSubsidized Services

Casper

Billings, Mont.
 Laramie, Wyo.
 Riverton, Wyo.

Cheyenne

Casper, Wyo.
 Denver, Colo.
 Laramie, Wyo.
 Scottsbluff, Nebr.

Cody

Billings, Mont.

Jackson

Billings, Mont.
 Denver, Colo.
 Salt Lake City, Utah

Laramie

Denver, Colo.
 Riverton, Wyo.
 Rock Springs, Wyo.

Riverton

Worland, Wyo.

Rock Springs

Riverton, Wyo.
 Steamboat Springs, Colo.
 Vernal, Utah

Worland

Cody, Wyo.

EXHIBIT D

CITY PAIRS RISKING CURTAILMENT OF SERVICE
BY STATE

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services (1973 Actual)	Services Assigned at Maximum Earnings (Simulation)
<u>ALABAMA</u>		
Between:		
<u>Birmingham</u>		
and:		
- Chicago, Ill.	6	2
- Cincinnati, Ohio	2	2
- Dallas/Ft. Worth, Tex.	2	2
- Jackson/Vicksburg, Miss.	9	4
- Los Angeles, Calif.	3	2
- Memphis, Tenn.	9	4
- Miami, Fla.	3	2
- Mobile, Ala.	6	2
- New Orleans, La.	7	2
- New York, N. Y.	5	2
<u>Huntsville/Decatur</u>		
and:		
- Greensboro, N.C.	2	2
- Los Angeles, Calif.	3	2
- Knoxville, Tenn.	6	2
- Orlando, Fla.	2	2
- St. Louis, Mo.	2	2
- Washington, D.C.	2	2
<u>Mobile</u>		
and:		
- Atlanta, Ga.	12	4
- Birmingham, Ala.	6	2
<u>Montgomery</u>		
and:		
- Jackson/Vicksburg, Miss.	5	2
- New Orleans, La.	4	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at Maximum Earnings <u>(Simulation)</u>
<u>ARIZONA</u>		
Between:		
<u>Phoenix</u>		
and:		
- Albuquerque, N. M.	4	2
- Amarillo, Texas	2	2
- Chicago, Ill.	18	8
- Dallas, Texas	17	6
- Denver, Colo.	18	8
- El Paso, Texas	4	2
- Houston, Texas	1	2
- Kansas City, Mo.	3	2
- Las Vegas, Nev.	14	6
- Los Angeles, Calif.	29	18
- Minneapolis/St. Paul, Minn.	2	2
- New York, N. Y.	6	2
- Oklahoma City, Okla.	4	2
- Portland, Ore.	2	2
- St. Louis, Mo.	7	4
- San Antonio, Texas	2	2
- San Francisco, Calif.	9	6
- Washington, D. C.	4	2
 <u>Tucson</u>		
and:		
- Chicago, Ill.	9	4
- Dallas, Texas	6	4
- Los Angeles, Calif.	10	4
- San Francisco, Calif.	4	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>ARKANSAS</u>		
Between:		
<u>Little Rock</u>		
and:		
- Dallas, Texas	14	4
- Houston, Texas	2	2
- Kansas City, Mo.	2	2
- Memphis, Tenn.	31	2
- Nashville, Tenn.	2	2
- Oklahoma City, Okla.	2	2
- St. Louis, Mo.	6	4
- Shreveport, La.	4	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at Maximum Earnings <u>(Simulation)</u>
<u>CALIFORNIA</u>		
Between:		
<u>Los Angeles</u>		
and:		
- Albuquerque, N. M.	12	4
- Atlanta, Ga.	13	6
- Baltimore, Md.	3	2
- Birmingham, Ala.	3	2
- Boston, Mass.	7	4
- Chicago, Ill.	42	16
- Cleveland, Ohio	9	2
- Colorado Springs, Colo.	2	2
- Columbus, Ohio	2	2
- Dallas, Texas	26	10
- Denver, Colo.	26	12
- Des Moines, Iowa	2	2
- Detroit, Mich.	10	4
- El Paso, Texas	14	4
- Hartford, Conn.	4	2
- Houston, Texas	14	6
- Huntsville/Decatur, Ala.	3	2
- Indianapolis, Ind.	2	2
- Kansas City, Mo.	12	4
- Memphis, Tenn.	8	4
- Miami, Fla.	4	4
- Milwaukee, Wis.	4	2
- Minneapolis/St. Paul, Minn.	13	6
- Monterey, Calif.	11	6
- New Orleans, La.	6	4
- New York, N. Y.	25	12
- Oklahoma City, Okla.	8	4
- Omaha, Neb.	6	2
- Philadelphia, Pa.	10	2

Comparison of Non-Stop Scheduled Services (cont'd.)

	Average Daily Non-Stop Services (1973 Actual)	Services Assigned at Maximum Earnings (Simulation)
<u>CALIFORNIA</u> (cont'd)		
Between:		
<u>Los Angeles</u> (cont'd)		
and:		
- Phoenix, Ariz.	29	18
- Pittsburgh, Pa.	3	2
- Portland, Ore.	16	6
- Reno, Nev.	6	4
- Sacramento, Calif.	13	8
- St. Louis, Mo.	11	4
- Salt Lake City, Utah	12	6
- San Antonio, Texas	3	2
- San Francisco, Calif.	80	48
- Seattle, Wash.	18	6
- Tampa, Fla.	1	2
- Tucson, Ariz.	10	4
- Washington, D.C.	11	4
<u>Monterey</u>		
and:		
- Los Angeles, Calif.	11	6
<u>Sacramento</u>		
and:		
- Chicago, Ill.	4	2
- Denver, Colo.	4	4
- Los Angeles, Calif.	13	8
- Portland, Ore.	2	2
- Salt Lake City, Utah	2	2
<u>San Diego</u>		
and:		
- Chicago, Ill.	13	4
- Dallas, Texas	6	2
- Denver, Colo.	6	2
- New York, N.Y.	3	2
- Seattle, Wash.	2	2
- Washington, D.C.	4	2
<u>San Francisco</u>		
and:		
- Albuquerque, N.M.	12	4
- Atlanta, Ga.	7	2
- Baltimore, Md.	4	2

Comparison of Non-Stop Scheduled Services (cont'd.)

	Average Daily Non-Stop Services (1973 Actual)	Services Assigned at Maximum Earnings (Simulation)
<u>CALIFORNIA (cont'd)</u>		
Between:		
<u>San Francisco (cont'd)</u>		
and:		
- Boise, Idaho	4	2
- Boston, Mass.	7	4
- Chicago, Ill.	29	12
- Cleveland, Ohio	2	2
- Dallas, Texas	18	2
- Denver, Colo.	26	6
- Detroit, Mich.	9	2
- Eugene, Ore.	8	2
- Houston, Texas	5	2
- Kansas City, Mo.	5	2
- Las Vegas, Nev.	31	14
- Los Angeles, Calif.	80	48
- Medford, Ore.	6	4
- Miami, Fla.	4	2
- Minneapolis/St. Paul, Minn.	11	2
- New Orleans, La.	2	2
- New York, N. Y.	19	2
- Oklahoma City, Okla.	3	2
- Omaha, Neb.	2	2
- Philadelphia, Pa.	7	2
- Phoenix, Ariz.	9	6
- Pittsburgh, Pa.	2	2
- Portland, Ore.	28	10
- St. Louis, Mo.	4	2
- Salt Lake City, Utah	11	2
- San Antonio, Texas	3	2
- Seattle, Wash.	31	10
- Spokane, Wash.	4	2
- Tucson, Ariz.	4	2
- Washington, D. C.	7	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services (1973 Actual)	Services Assigned at Maximum Earnings (Simulation)
<u>COLORADO</u>		
Between:		
<u>Colorado Springs</u>		
and:		
- Albuquerque, N. M.	5	2
- Chicago, Ill.	3	2
- Dallas, Tex.	3	2
- Los Angeles, Calif.	3	2
 <u>Denver</u>		
and:		
- Albuquerque, N. M.	15	8
- Baltimore, Md.	2	2
- Billings, Mont.	4	2
- Boise, Idaho	4	4
- Boston, Mass.	4	2
- Chicago, Ill.	16	10
- Cleveland, Ohio	2	2
- Dallas, Tex.	25	8
- Des Moines, Iowa	6	4
- Detroit, Mich.	5	2
- Fresno, Calif.	2	2
- Houston, Tex.	9	2
- Kansas City, Mo.	19	6
- Las Vegas, Nev.	14	6
- Lincoln, Neb.	4	2
- Los Angeles, Calif.	26	12
- Memphis, Tenn.	2	2
- Midland/Odessa, Tex.	2	4

Comparison of Non-Stop Scheduled Services (cont'd)

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at Maximum Earnings <u>(Simulation)</u>
<u>COLORADO</u> (cont'd)		
Between:		
<u>Denver</u>		
and:		
- Milwaukee, Wis.	6	2
- Minneapolis/St. Paul, Minn.	16	6
- Moline, Ill.	2	2
- New Orleans, La.	1	2
- New York, N.Y.	16	4
- Oklahoma City, Okla.	5	4
- Omaha, Neb.	15	4
- Philadelphia, Pa.	2	2
- Phoenix, Ariz.	18	8
- Portland, Ore.	14	4
- Rapid City, S.D.	6	4
- Reno, Nev.	4	2
- Sacramento, Calif.	4	4
- Salt Lake City, Utah	26	14
- San Diego, Calif.	6	2
- San Francisco, Calif.	26	6
- Seattle, Wash.	13	6
- Sioux Falls, S.D.	4	2
- Spokane, Wash.	3	2
- St. Louis, Mo.	14	6
- Tulsa, Okla.	2	2
- Washington, D.C.	9	4
- Wichita, Kan.	10	4
<u>Grand Junction</u>		
and:		
- Las Vegas, Nev.	2	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	<u>Average Daily Non-Stop Services (1973 Actual)</u>	<u>Services Assigned at Maximum Earnings (Simulation)</u>
<u>CONNECTICUT</u>		
Between:		
<u>Hartford</u>		
and:		
- Atlanta, Ga.	8	4
- Chicago, Ill.	18	8
- Cleveland, Ohio	4	2
- Detroit, Mich.	6	4
- Ft. Lauderdale, Fla.	3	2
- Los Angeles, Calif.	4	2
- Miami, Fla.	3	2
- Philadelphia, Pa.	11	4
- Pittsburgh, Pa.	10	4
- Washington, D. C.	14	4
 <u>New Haven</u>		
and:		
- Washington, D.C.	5	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
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DELAWARE

None.

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at Maximum Earnings <u>(Simulation)</u>
<u>DISTRICT OF COLUMBIA</u>		
Between:		
<u>Washington</u>		
and:		
- Atlanta, Ga.	30	8
- Austin, Tex.	2	2
- Boston, Mass.	44	10
- Buffalo, N. Y.	11	2
- Charleston, S. C.	4	4
- Charlotte, N. C.	6	2
- Chicago, Ill.	52	10
- Cleveland, Ohio	19	4
- Cincinnati, Ohio	7	2
- Columbia, S. C.	2	2
- Columbus, Ohio	9	2
- Dallas, Tex.	14	4
- Dayton, Ohio	8	4
- Denver, Colo.	9	4
- Detroit, Mich.	17	6
- Greensboro/High Point, N. C.	6	2
- Greenville, Spartanburg, S. C.	2	2
- Hartford, Conn.	14	4
- Houston, Tex.	4	2
- Huntsville/Decatur, Ala.	2	2
- Indianapolis, Ind.	3	2
- Jacksonville, Fla.	5	2
- Kansas City, Mo.	1	2
- Knoxville, Tenn.	7	4
- Lexington, Ky.	2	2
- Los Angeles, Calif.	11	4
- Louisville, Ky.	6	2
- Memphis, Tenn.	8	4

Comparison of Non-Stop Scheduled Services (cont'd)

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>DISTRICT OF COLUMBIA (cont'd)</u>		
Between:		
<u>Washington</u>		
and:		
- Miami, Fla.	17	4
- Milwaukee, Wis.	2	2
- Minneapolis/St. Paul, Minn.	11	2
- Nashville, Tenn.	8	4
- New Haven, Conn.	5	2
- New York, N.Y.	128	36
- Orlando, Fla.	6	4
- Phoenix, Ariz.	4	2
- Pittsburgh, Pa.	15	6
- Providence, R.I.	11	4
- Rochester, N.Y.	8	4
- St. Louis, Mo.	11	4
- San Diego, Calif.	4	2
- San Francisco, Calif.	7	2
- Syracuse, N.Y.	10	2
- Tampa, Fla.	6	2
- Tulsa, Okla.	2	2
- West Palm Beach, Fla.	3	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>FLORIDA</u>		
Between:		
<u>Daytona Beach</u>		
and:		
- Atlanta, Ga.	9	4
- Miami, Fla.	6	2
- New York, N. Y.	1	2
 <u>Ft. Lauderdale</u>		
and:		
- Atlanta, Ga.	23	6
- Baltimore, Md.	4	2
- Boston, Mass.	6	4
- Chicago, Ill.	14	4
- Cleveland, Ohio	6	4
- Detroit, Mich.	3	2
- Hartford, Conn.	3	2
- Jacksonville, Fla.	4	2
- New York, N. Y.	44	14
- Philadelphia, Pa.	7	2
- Pittsburgh, Pa.	5	4
- Tampa, Fla.	13	4
 <u>Gainesville</u>		
and:		
- Atlanta, Ga.	4	2
 <u>Jacksonville</u>		
and:		
- Atlanta, Ga.	30	14
- Chicago, Ill.	4	2
- Ft. Lauderdale, Fla.	4	2

Comparison of Non-Stop Scheduled Services (cont'd.)

	Average Daily Non-Stop Services (1973 Actual)	Services Assigned at Maximum Earnings (Simulation)
<u>FLORIDA (Cont'd.)</u>		
<u>Between</u>		
<u>Jacksonville (Cont'd.)</u>		
and:		
- Miami, Fla.	8	4
- New Orleans, La.	2	2
- New York, N.Y.	2	4
- Norfolk, Va.	1	2
- Philadelphia, Pa.	3	2
- Washington, D.C.	5	2
- West Palm Beach, Fla.	5	2
<u>Melbourne</u>		
and:		
- Atlanta, Ga.	7	4
<u>Miami</u>		
and:		
- Atlanta, Ga.	34	10
- Baltimore, Md.	5	2
- Birmingham, Ala.	3	2
- Boston, Mass.	13	4
- Buffalo, N.Y.	2	2
- Charlotte, N.C.	4	2
- Chicago, Ill.	18	6
- Cincinnati, Ohio	4	2
- Cleveland, Ohio	5	4
- Columbus, Ohio	4	2
- Dallas, Tex.	11	4
- Daytona Beach, Fla.	6	2
- Detroit, Mich.	7	4
- Hartford, Conn.	3	2
- Houston, Tex.	7	2
- Jacksonville, Fla.	8	4
- Los Angeles, Calif.	4	4
- New Orleans, La.	8	2
- New York, N.Y.	66	20
- Philadelphia, Pa.	14	6
- Pittsburgh, Pa.	10	4
- Raleigh/Durham, N.C.	2	2
- St. Louis, Mo.	5	2
- San Francisco, Calif.	4	2
- Tampa, Fla.	34	12
- Washington, D.C.	17	4

Comparison of Non-Stop Scheduled Services (cont'd.)

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>FLORIDA (Cont'd.)</u>		
Between:		
<u>Orlando</u>		
and:		
- Atlanta, Ga.	26	10
- Boston, Mass.	3	2
- Charlotte, N.C.	2	2
- Chicago, Ill.	7	4
- Cleveland, Ohio	2	2
- Cincinnati, Ohio	2	2
- Dallas, Tex.	2	2
- Detroit, Mich.	3	4
- Huntsville/Decatur, Ala.	2	2
- New York, N.Y.	17	6
- Philadelphia, Pa.	2	2
- Washington, D.C.	6	4
<u>Panama City</u>		
and:		
- Tampa, Fla.	3	2
<u>Pensacola</u>		
and:		
- Atlanta, Ga.	12	6
<u>Sarasota</u>		
and:		
- Atlanta, Ga.	7	4
- Chicago, Ill.	2	2
<u>Tallahassee</u>		
and:		
- Atlanta, Ga.	10	6
<u>Tampa</u>		
and:		
- Atlanta, Ga.	37	12
- Boston, Mass.	6	2
- Chicago, Ill.	16	6
- Cincinnati, Ohio	4	4
- Cleveland, Ohio	5	2
- Columbus, Ohio	2	2
- Dallas, Tex.	7	4

Comparison of Non-Stop Scheduled Services (cont'd)

	Average Daily Non-Stop Services (1973 Actual)	Services Assigned at Maximum Earnings (Simulation)
<u>FLORIDA</u> (cont'd)		
Between:		
<u>Tampa</u> (cont'd)		
and:		
- Dayton, Ohio	2	2
- Detroit, Mich.	9	4
- Ft. Lauderdale, Fla.	13	4
- Houston, Tex.	1	2
- Los Angeles, Calif.	1	2
- Louisville, Ky.	2	2
- Miami, Fla.	34	12
- Milwaukee, Wis.	2	2
- Nashville, Tenn.	2	2
- New Orleans, La.	9	6
- New York, N.Y.	20	6
- Panama City, Fla.	3	2
- Philadelphia, Pa.	8	4
- Pittsburgh, Pa.	6	2
- St. Louis, Mo.	5	2
- Washington, D. C.	6	2
 <u>West Palm Beach</u>		
and:		
- Atlanta, Ga.	17	6
- Chicago, Ill.	2	2
- Jacksonville, Fla.	5	2
- New York, N.Y.	9	6
- Washington, D. C.	3	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>GEORGIA</u>		
Between:		
<u>Atlanta</u>		
and:		
- Akron/Canton, Ohio	2	2
- Baltimore, Md.	18	4
- Baton Rouge, La.	3	2
- Boston, Mass.	11	4
- Buffalo, N. Y.	9	4
- Charleston, S. C.	6	4
- Charleston, W. Va.	3	2
- Charlotte, N. C.	25	12
- Chicago, Ill.	34	10
- Columbus, Ohio	5	4
- Cincinnati, Ohio	14	4
- Cleveland, Ohio	12	4
- Dallas/Ft. Worth, Tex.	31	10
- Dayton, Ohio	11	4
- Daytona Beach, Fla.	9	4
- Detroit, Mich.	10	6
- Evansville, Ind.	2	2
- Ft. Lauderdale, Fla.	23	6
- Gainesville, Fla.	4	2
- Greensboro/High Point, N. C.	12	6
- Hartford, Conn.	8	4
- Houston, Tex.	26	8
- Indianapolis, Ind.	13	4
- Jackson/Vicksburg, Miss.	8	4
- Jacksonville, Fla.	30	14

Comparison of Non-Stop Scheduled Services (cont'd.)

	Average Daily Non-Stop Services (1973 Actual)	Services Assigned at Maximum Earnings (Simulation)
<u>GEORGIA (cont'd.)</u>		
Between:		
<u>Atlanta (cont'd.)</u>		
and:		
- Kansas City, Mo.	6	2
- Las Vegas, Nev.	2	2
- Lexington, Ky.	2	2
- Louisville, Ky.	23	6
- Los Angeles, Calif.	13	6
- Melbourne, Fla.	7	4
- Memphis, Tenn.	18	8
- Miami, Fla.	34	10
- Milwaukee, Wis.	6	4
- Minneapolis/St. Paul, Minn.	10	4
- Mobile, Ala.	12	4
- Nashville, Tenn.	14	6
- New Orleans, La.	29	8
- Newport News, Va.	2	2
- New York, N.Y.	57	14
- Norfolk, Va.	5	4
- Orlando, Fla.	26	10
- Pensacola, Fla.	12	6
- Philadelphia, Pa.	25	6
- Pittsburgh, Pa.	15	4
- Providence, R.I.	2	2
- Raleigh/Durham, N.C.	12	4
- Richmond, Va.	8	4
- Rochester, N.Y.	3	2
- San Antonio, Tex.	7	2
- San Francisco, Calif.	7	2
- St. Louis, Mo.	18	6
- Sarasota, Fla.	7	4
- Savannah, Ga.	13	6
- Shreveport, La.	2	2
- Syracuse, N.Y.	4	4
- Tallahassee, Fla.	10	6
- Tampa, Fla.	37	12
- Washington, D.C.	30	8
- West Palm Beach, Fla.	17	6
<u>Savannah</u>		
and:		
- Atlanta, Ga.	13	6

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

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	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>IDAHO</u>		
Between:		
<u>Boise</u>		
and:		
- Chicago, Ill.	2	2
- Denver, Colo.	4	4
- Portland, Ore.	4	4
- Reno, Nev.	2	2
- San Francisco, Calif.	4	2
- Seattle, Wash.	2	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>ILLINOIS</u>		
Between:		
<u>Chicago</u>		
and:		
- Akron/Canton, Ohio	7	2
- Albany, N.Y.	6	2
- Albuquerque, N.Mex.	9	4
- Allentown, Pa.	3	2
- Atlanta, Ga.	34	10
- Baltimore, Md.	14	4
- Billings, Mont.	2	2
- Birmingham, Ala.	6	2
- Boise, Idaho	2	2
- Boston, Mass.	29	10
- Buffalo, N.Y.	15	6
- Charlotte, N.C.	7	2
- Cleveland, Ohio	34	12
- Colorado Springs, Colo.	3	2
- Columbia, S. C.	2	2
- Columbus, Ohio	15	6
- Dallas, Tex.	25	6
- Denver, Colo.	41	10
- Des Moines, Iowa	19	6
- El Paso, Tex.	3	2
- Evansville, Ind.	6	2
- Ft. Lauderdale, Fla.	14	4
- Greensboro/High Point, N.C.	8	2
- Harrisburg, Pa.	2	2
- Hartford, Conn.	18	8

Comparison of Non-Stop Scheduled Services (cont'd.)

	Average Daily Non-Stop Services (1973 Actual)	Services Assigned at Maximum Earnings (Simulation)
<u>ILLINOIS (cont'd.)</u>		
Between:		
<u>Chicago (cont'd.)</u>		
and:		
- Houston, Tex.	14	4
- Islip, N. Y.	2	2
- Jacksonville, Fla.	4	2
- Kansas City, Mo.	41	12
- Knoxville, Tenn.	2	2
- Las Vegas, Nev.	19	8
- Lincoln, Nebr.	4	2
- Los Angeles, Calif.	42	16
- Louisville, Ky.	16	8
- Memphis, Tenn.	19	6
- Miami, Fla.	18	6
- Minneapolis/St. Paul, Minn.	56	32
- Nashville, Tenn.	12	4
- New Orleans, La.	8	4
- Newport News, Va.	2	2
- New York, N. Y.	117	36
- Norfolk, Va.	7	4
- Oklahoma City, Okla.	7	4
- Omaha, Nebr.	19	10
- Orlando, Fla.	7	4
- Phoenix, Ariz.	18	8
- Pittsburgh, Pa.	44	10
- Portland, Oreg.	11	4
- Providence, R. I.	4	2
- Raleigh/Durham, N.C.	6	4
- Reno, Nev.	2	2
- Rochester, Minn.	12	4
- Rochester, N. Y.	12	4
- Sacramento, Calif.	4	2
- Salt Lake City, Utah	15	6
- San Antonio, Tex.	7	2
- San Diego, Calif.	13	4
- San Francisco, Calif.	29	12
- Sarasota, Fla.	2	2
- Seattle, Wash.	15	6
- Spokane, Wash.	2	2
- Syracuse, N. Y.	6	4
- Tampa, Fla.	16	6

Comparison of Non-Stop Scheduled Services (cont'd.)

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>ILLINOIS</u> (cont'd.)		
Between:		
<u>Chicago</u> (cont'd.)		
and:		
- Tucson, Ariz.	9	4
- Tulsa, Okla.	7	4
- Washington, D.C.	52	10
- West Palm Beach, Fla.	2	2
- Wichita, Kan.	6	2
- Youngstown, Ohio	5	2
 <u>Moline</u>		
and:		
- Denver, Colo.	2	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

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	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>INDIANA</u>		
Between:		
<u>Evansville</u>		
and:		
- Atlanta, Ga.	2	2
- Chicago, Ill.	6	2
 <u>Indianapolis</u>		
and:		
- Atlanta, Ga.	13	4
- Dallas, Tex.	5	2
- Kansas City, Mo.	4	2
- Los Angeles, Calif.	2	2
- Memphis, Tenn.	7	2
- Minneapolis/St. Paul, Minn.	2	2
- New York, N.Y.	8	4
- Philadelphia, Pa.	2	2
- Pittsburgh, Pa.	5	2
- Washington, D.C.	3	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	<u>Average Daily Non-Stop Services (1973 Actual)</u>	<u>Services Assigned at Maximum Earnings (Simulation)</u>
<u>IOWA</u>		
Between:		
<u>Cedar Rapids</u>		
and:		
- Chicago, Ill.	11	6
<u>Des Moines</u>		
and:		
- Chicago, Ill.	18	6
- Denver, Colo.	6	4
- Los Angeles, Calif.	2	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>KANSAS</u>		
Between:		
<u>Wichita</u>		
and:		
- Albuquerque, N. M.	2	2
- Chicago, Ill.	6	2
- Denver, Colo.	10	4

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>KENTUCKY</u>		
Between:		
<u>Lexington</u>		
and:		
- New York, N. Y.	2	2
- Washington, D. C.	2	2
 <u>Louisville</u>		
and:		
- Atlanta, Ga.	23	6
- Chicago, Ill.	16	8
- Cleveland, Ohio	4	2
- Columbus, Ohio	4	2
- Dallas, Tex.	3	2
- Detroit, Mich.	7	4
- Kansas City, Mo.	2	2
- Knoxville, Tenn.	4	2
- Memphis, Tenn.	4	2
- New York, N. Y.	5	4
- St. Louis, Mo.	5	2
- Tampa, Fla.	2	2
- Washington, D. C.	6	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at Maximum Earnings <u>(Simulation)</u>
<u>LOUISIANA</u>		
Between:		
<u>Alexandria</u>		
and:		
- Dallas, Texas	4	2
<u>New Orleans</u>		
and:		
- Atlanta, Ga.	29	8
- Baltimore, Md.	4	2
- Birmingham, Ala.	7	2
- Boston, Mass.	2	2
- Chicago, Ill.	8	4
- Dallas, Texas	24	6
- Denver, Colo.	1	2
- Houston, Texas	36	14
- Jacksonville, Fla.	2	2
- Kansas City, Mo.	2	2
- Los Angeles, Calif.	6	4
- Memphis, Tenn.	15	4
- Miami, Fla.	8	2
- Montgomery, Ala.	4	2
- Nashville, Tenn.	2	2
- New York, N. Y.	12	4
- Philadelphia, Pa.	3	2
- Pittsburgh, Pa.	4	2
- St. Louis, Mo.	4	2
- San Antonio, Texas	3	2
- San Francisco, Calif.	2	2
- Shreveport, La.	8	2
- Tampa, Fla.	9	6

Comparison of Non-Stop Scheduled Services (cont'd)

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at Maximum Earnings <u>(Simulation)</u>
<u>LOUISIANA (cont'd)</u>		
Between:		
<u>Shreveport</u>		
and:		
- Atlanta, Ga.	2	2
- Dallas, Texas	17	6
- Houston, Texas	7	2
- Jackson/Vicksburg, Miss.	12	4
- Little Rock, Ark.	4	2
- Memphis, Tenn.	8	4
- New Orleans, La.	8	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at Maximum Earnings <u>(Simulation)</u>
<u>MAINE</u>		
Between:		
<u>Bangor</u>		
and:		
- Boston, Mass.	9	4
<u>Portland</u>		
and:		
- New York, N. Y.	4	2
<u>Presque Isle</u>		
and:		
- Boston, Mass.	4	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>MARYLAND</u>		
Between:		
Baltimore		
and:		
- Atlanta, Ga.	18	4
- Boston, Mass.	16	4
- Chicago, Ill	14	4
- Cleveland, Ohio	4	2
- Dallas, Texas	5	4
- Denver, Colo.	2	2
- Detroit, Mich.	4	2
- Ft. Lauderdale, Fla.	4	2
- Houston, Texas	2	2
- Kansas City, Mo.	2	2
- Los Angeles, Calif.	3	2
- Miami, Fla.	5	2
- New Orleans, La.	4	2
- Pittsburgh, Pa.	12	4
- St. Louis, Mo.	2	2
- San Francisco, Calif.	4	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	<u>Average Daily Non-Stop Services (1973 Actual)</u>	<u>Services Assigned at Maximum Earnings (Simulation)</u>
<u>MASSACHUSETTS</u>		
Between:		
<u>Boston</u>		
and:		
- Atlanta, Ga.	11	4
- Baltimore, Md.	16	4
- Bangor, Maine	9	4
- Buffalo, N.Y.	8	2
- Charlotte, N.C.	2	2
- Chicago, Ill.	29	10
- Cleveland, Ohio	10	2
- Cincinnati, Ohio	5	2
- Columbus, Ohio	3	2
- Dallas, Texas	2	2
- Denver, Colo.	4	2
- Detroit, Mich.	8	4
- Ft. Lauderdale, Fla.	6	4
- Los Angeles, Calif.	7	4
- Miami, Fla.	13	4
- Milwaukee, Wis.	2	2
- Minneapolis/St. Paul, Minn.	4	2
- New Orleans, La.	2	2
- New York, N.Y.	121	60
- Orlando, Fla.	3	2
- Philadelphia, Pa.	42	16
- Pittsburgh, Pa.	11	2
- Presque Isle, Me.	4	2
- St. Louis, Mo.	4	2
- San Francisco, Calif.	7	4
- Tampa, Fla.	6	2
- Washington, D.C.	44	10

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at Maximum Earnings <u>(Simulation)</u>
<u>MICHIGAN</u>		
Between:		
<u>Detroit</u>		
and:		
- Albany, N.Y.	4	2
- Atlanta, Ga.	10	6
- Baltimore, Md.	4	2
- Boston, Mass.	8	4
- Buffalo, N.Y.	11	2
- Burlington, Vt.	2	2
- Cincinnati, Ohio	14	4
- Dallas, Texas	7	2
- Denver, Colo.	5	2
- Ft. Lauderdale, Fla.	3	2
- Hartford, Conn.	6	4
- Kansas City, Mo.	4	2
- Las Vegas, Nev.	2	2
- Los Angeles, Calif.	10	4
- Louisville, Ky.	7	4
- Memphis, Tenn.	3	2
- Miami, Fla.	7	4
- Minneapolis/St. Paul, Minn.	5	4
- New York, N.Y.	56	12
- Orlando, Fla.	3	4
- Philadelphia, Pa.	14	4
- Pittsburgh, Pa.	14	6
- Rochester, N.Y.	12	2
- St. Louis, Mo.	6	2
- San Francisco, Calif.	9	2
- Syracuse, N.Y.	2	2
- Tampa, Fla.	9	4
- Washington, D.C.	17	6

Comparison of Non-Stop Scheduled Services (cont'd)

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>MICHIGAN</u> (cont'd)		
Between:		
<u>Saginaw</u>		
and:		
- New York, N. Y.	2	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at Maximum Earnings <u>(Simulation)</u>
<u>MINNESOTA</u>		
Between:		
<u>Minneapolis/St. Paul</u>		
and:		
- Atlanta, Ga.	10	4
- Billings, Mont.	2	2
- Bismarck, N. Dak.	2	2
- Boston, Mass.	4	2
- Chicago, Ill.	56	32
- Cleveland, Ohio	4	2
- Dallas, Tex.	4	2
- Denver, Colo.	16	6
- Detroit, Mich.	5	4
- Indianapolis, Ind.	2	2
- Kansas City, Mo.	6	2
- Las Vegas, Nev.	3	2
- Los Angeles, Calif.	13	6
- Milwaukee, Wis.	12	4
- New York, N. Y.	16	4
- Omaha, Nebr.	13	6
- Philadelphia, Pa.	4	2
- Phoenix, Ariz.	2	2
- Rapid City, S. Dak.	2	2
- San Francisco, Calif.	11	2
- Seattle, Wash.	8	4
- Spokane, Wash.	4	2
- St. Louis, Mo.	6	2
- Washington, D. C.	11	2
<u>Rochester</u>		
and:		
- Chicago, Ill.	12	4

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>MISSISSIPPI</u>		
Between:		
<u>Jackson/Vicksburg</u>		
and:		
- Atlanta, Ga.	8	4
- Birmingham, Ala.	9	4
- Dallas, Tex.	3	2
- Memphis, Tenn.	16	4
- Montgomery, Ala.	5	2
- Shreveport, La.	12	4

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>MISSOURI</u>		
Between:		
<u>Kansas City</u>		
and:		
- Albuquerque, N.M.	4	2
- Amarillo, Tex.	2	2
- Atlanta, Ga.	6	2
- Baltimore, Md.	2	2
- Chicago, Ill.	41	12
- Cincinnati, Ohio	2	2
- Dallas, Tex.	18	8
- Denver, Colo.	19	6
- Detroit, Mich.	4	2
- Indianapolis, Ind.	4	2
- Las Vegas, Nev.	2	2
- Little Rock, Ark.	2	2
- Los Angeles, Calif.	12	4
- Louisville, Ky.	2	2
- Memphis, Tenn.	8	4
- Minneapolis/St. Paul, Minn.	6	2
- New Orleans, La.	2	2
- New York, N.Y.	4	2
- Philadelphia, Pa.	2	2
- Phoenix, Ariz.	3	2
- San Francisco, Calif.	5	4
- Seattle, Wash.	2	2
- Washington, D.C.	1	2

Comparison of Non-Stop Scheduled Services (cont'd.)

	Average Daily Non-Stop Services (1973 Actual)	Services Assigned at Maximum Earnings (Simulation)
<u>MISSOURI (cont'd.)</u>		
Between:		
<u>St. Louis</u>		
and:		
- Atlanta, Ga.	18	6
- Baltimore, Md.	2	2
- Boston, Mass.	4	2
- Charlotte, N.C.	2	2
- Cleveland, Ohio	9	4
- Cincinnati, Ohio	10	4
- Dallas, Tex.	14	6
- Dayton, Ohio	10	2
- Denver, Colo.	14	6
- Detroit, Mich.	6	2
- Houston, Tex.	8	2
- Huntsville/Decatur, Ala.	2	2
- Las Vegas, Nev.	3	4
- Little Rock, Ark.	6	2
- Louisville, Ky.	5	4
- Los Angeles, Calif.	11	6
- Memphis, Tenn.	26	2
- Miami, Fla.	5	2
- Minneapolis/St. Paul, Minn.	6	2
- New Orleans, La.	4	4
- New York, N.Y.	18	2
- Oklahoma City, Okla.	2	4
- Omaha, Nebr.	9	4
- Philadelphia, Pa.	5	4
- Phoenix, Ariz.	7	4
- Pittsburgh, Pa.	8	2
- San Francisco, Calif.	4	2
- Seattle, Wash.	3	4
- Tulsa, Okla.	11	2
- Tampa, Fla.	5	4
- Washington, D.C.	11	

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at Maximum Earnings <u>(Simulation)</u>
<u>MONTANA</u>		
Between:		
<u>Billings</u>		
and:		
- Chicago, Ill.	2	2
- Denver, Colo.	4	2
- Minneapolis/St. Paul, Minn.	2	2
 <u>Great Falls</u>		
and:		
- Salt Lake City, Utah	2	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at Maximum Earnings <u>(Simulation)</u>
<u>NEBRASKA</u>		
Between:		
<u>Lincoln</u>		
and:		
- Chicago, Ill.	4	2
- Denver, Colo.	4	2
 <u>Omaha</u>		
and:		
- Chicago, Ill.	19	10
- Denver, Colo.	15	2
- Los Angeles, Calif.	6	2
- Minneapolis/St. Paul, Minn.	13	6
- San Francisco, Calif.	2	2
- Seattle, Wash.	3	2
- St. Louis, Mo.	9	4

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>NEVADA</u>		
Between:		
<u>Las Vegas</u>		
and:		
- Albuquerque, N.M.	5	4
- Atlanta, Ga.	2	2
- Chicago, Ill.	19	8
- Dallas, Tex.	6	2
- Denver, Colo.	14	6
- Detroit, Mich.	2	2
- Grand Junction, Colo.	2	2
- Houston, Tex.	6	2
- Kansas City, Mo.	2	2
- Milwaukee, Wis.	1	2
- Minneapolis/St. Paul, Minn.	3	2
- New York, N.Y.	7	4
- Phoenix, Ariz.	14	6
- St. Louis, Mo.	2	2
- Salt Lake City, Utah	17	8
- San Francisco, Calif.	31	14
 <u>Reno</u>		
and:		
- Boise, Idaho	2	2
- Chicago, Ill.	2	2
- Denver, Colo.	4	2
- Los Angeles, Calif.	6	4
- Portland, Oreg.	6	2
- Salt Lake City, Utah	7	4
- Seattle, Wash.	2	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non- Stop Services <u>(1973 Actual)</u>	Services Assigned at Maximum Earnings <u>(Simulation)</u>
<u>NEW HAMPSHIRE</u>		
Between:		
<u>Manchester</u>		
and:		
Cleveland, Ohio	2	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>NEW JERSEY</u>		
None.		

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>NEW MEXICO</u>		
Between:		
<u>Albuquerque</u>		
and:		
- Chicago, Ill.	9	4
- Colorado Springs, Colo.	5	2
- Dallas, Tex.	11	4
- Denver, Colo.	15	8
- Kansas City, Mo.	4	2
- Las Vegas, Nev.	5	4
- Los Angeles, Calif.	12	4
- Lubbock, Tex.	2	2
- Midland, Tex.	3	2
- Oklahoma City, Okla.	2	2
- Phoenix, Ariz.	4	2
- San Antonio, Tex.	2	2
- San Francisco, Calif.	5	4
- Wichita, Kan.	2	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at Maximum Earnings <u>(Simulation)</u>
<u>NEW YORK</u>		
Between:		
<u>Albany</u>		
and:		
- Boston, Mass.	9	2
- Buffalo, N. Y.	11	2
- Chicago, Ill.	6	2
- Detroit, Mich.	4	2
<u>Buffalo</u>		
and:		
- Chicago, Ill.	15	6
- Cleveland, Ohio	13	4
- Detroit, Mich.	11	2
- Miami, Fla.	2	2
- New York, N. Y.	29	10
- Philadelphia, Pa.	4	2
- Pittsburgh, Pa.	17	6
- Washington, D. C.	11	2
<u>Islip</u>		
and:		
- Chicago, Ill.	2	2
<u>New York</u>		
and:		
- Atlanta, Ga.	57	14
- Birmingham, Ala.	5	2
- Boston, Mass.	121	60
- Buffalo, N. Y.	29	10
- Charleston, S. C.	2	2

Comparison of Non-Stop Scheduled Services (cont'd)

	Average Daily Non-Stop Services (1973 Actual)	Services Assigned at Maximum Earnings (Simulation)
<u>NEW YORK (cont'd)</u>		
Between:		
<u>New York (cont'd)</u>		
and:		
- Charleston, W. Va.	2	2
- Charlotte, N.C.	18	4
- Chicago, Ill.	117	36
- Cincinnati, Ohio	15	4
- Cleveland, Ohio	43	12
- Columbia, S.C.	6	2
- Columbus, Ohio	14	4
- Dallas, Texas	25	8
- Dayton, Ohio	11	4
- Daytona Beach, Fla.	1	2
- Denver, Colo.	16	4
- Detroit, Mich.	56	12
- Ft. Lauderdale, Fla.	44	14
- Greensboro, N.C.	13	2
- Greenville/Spartanburg, S.C.	6	2
- Houston, Texas	5	4
- Indianapolis, Ind.	8	4
- Jacksonville, Fla.	2	4
- Kansas City, Mo.	4	2
- Knoxville, Tenn.	5	2
- Las Vegas, Nev.	7	4
- Lexington, Ky.	2	2
- Los Angeles, Calif.	25	12
- Louisville, Ky.	5	4
- Memphis, Tenn.	3	4
- Miami, Fla.	66	20
- Milwaukee, Wis.	16	6
- Minneapolis/St. Paul, Minn.	16	4
- Nashville, Tenn.	6	4
- Norfolk, Va.	14	6
- New Orleans, La.	12	4
- Newport News, Va.	3	2
- Oklahoma City, Okla.	2	2
- Orlando, Fla.	17	6
- Phoenix, Ariz.	6	2
- Pittsburgh, Pa.	61	14
- Portland, Maine	4	2
- Raleigh/Durham, N.C.	12	4

Comparison of Non-Stop Scheduled Services (cont'd)

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>NEW YORK (cont'd)</u>		
Between:		
<u>New York (cont'd)</u>		
and:		
- Richmond, Va.	10	6
- Rochester, N.Y.	24	6
- Saginaw, Mich.	2	2
- Salt Lake City, Utah	2	2
- St. Louis, Mo.	18	4
- San Diego, Calif.	3	2
- San Francisco, Calif.	19	2
- Seattle, Wash.	5	2
- Syracuse, N.Y.	24	10
- Tampa, Fla.	20	6
- Toledo, Ohio	2	2
- Washington, D.C.	128	36
- West Palm Beach, Fla.	9	6
- Youngstown, Ohio	2	2
<u>Rochester</u>		
and:		
- Atlanta, Ga.	3	2
- Chicago, Ill.	12	4
- Cleveland, Ohio	4	2
- Detroit, Mich.	12	2
- New York, N.Y.	24	6
- Philadelphia, Pa.	3	2
- Pittsburgh, Pa.	4	2
- Washington, D.C.	8	4
<u>Syracuse</u>		
and:		
- Atlanta, Ga.	4	4
- Chicago, Ill.	6	4
- Detroit, Mich.	2	2
- New York, N.Y.	24	10
- Philadelphia, Pa.	6	2
- Washington, D.C.	10	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at Maximum Earnings <u>(Simulation)</u>
<u>NORTH CAROLINA</u>		
Between		
<u>Charlotte</u>		
and:		
- Akron/Canton, Ohio	2	2
- Atlanta, Ga.	25	12
- Boston, Mass.	2	2
- Chattanooga, Tenn.	6	2
- Chicago, Ill.	7	2
- Columbus, Ohio	4	2
- Memphis, Tenn.	4	2
- Miami, Fla.	4	2
- New York, N.Y.	18	4
- Orlando, Fla.	2	2
- Philadelphia, Pa.	6	2
- Pittsburgh, Pa.	8	4
- St. Louis, Mo.	2	2
- Washington, D.C.	6	2
<u>Greensboro</u>		
and:		
- Atlanta, Ga.	12	6
- Chicago, Ill.	8	2
- Huntsville/Decatur, Ala.	2	2
- New York, N.Y.	13	2
- Pittsburgh, Pa.	2	2
- Washington, D.C.	6	2

Comparison of Non-Stop Scheduled Services (cont'd.)

	Average Daily Non-Stop Services (1973 Actual)	Services Assigned Maximum Earnings (Simulation)
<u>NORTH CAROLINA (Cont'd.)</u>		
Between:		
<u>Raleigh/Durham</u>		
and:		
- Atlanta, Ga.	12	4
- Chicago, Ill.	6	4
- Miami, Fla.	2	2
- New York, N.Y.	12	4
- Philadelphia, Pa.	2	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>NORTH DAKOTA</u>		
Between:		
<u>Bismarck</u>		
and:		
- Minneapolis/St. Paul, Minn.	2	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services (1973 Actual)	Services Assigned at Maximum Earnings (Simulation)
<u>OHIO</u>		
Between		
<u>Akron/Canton</u>		
and:		
- Atlanta, Ga.	2	2
- Charlotte, N.C.	2	2
- Chicago, Ill.	7	2
<u>Cleveland</u>		
and:		
- Atlanta, Ga.	12	4
- Baltimore, Md.	4	2
- Boston, Mass.	10	2
- Chicago, Ill.	34	12
- Dallas, Tex.	5	4
- Denver, Colo.	2	2
- Ft. Lauderdale, Fla.	6	4
- Hartford, Conn.	4	2
- Houston, Tex.	2	2
- Los Angeles, Calif.	9	2
- Louisville, Ky.	4	2
- Manchester, N.H.	2	2
- Miami, Fla.	5	4
- Milwaukee, Wis.	6	4
- Minneapolis/St. Paul, Minn.	4	4
- New York, N.Y.	43	12
- Norfolk, Va.	2	2
- Orlando, Fla.	2	2
- Philadelphia, Pa.	15	4
- Providence, R.I.	2	2
- Rochester, N.Y.	4	2

Comparison of Non-Stop Scheduled Services (cont'd.)

	Average Daily Non-Stop Services (1973 Actual)	Services Assigned at Maximum Earnings (Simulation)
<u>OHIO (Cont'd.)</u>		
Between:		
<u>Cleveland (cont'd.)</u>		
and:		
- San Francisco, Calif.	2	2
- St. Louis, Mo.	9	4
- Tampa, Fla.	5	2
- Washington, D.C.	19	2
<u>Cincinnati</u>		
and:		
- Atlanta, Ga.	14	4
- Birmingham, Ala.	2	2
- Boston, Mass.	5	2
- Dallas, Tex.	7	2
- Detroit, Mich.	14	4
- Kansas City, Mo.	2	2
- Knoxville, Tenn.	5	2
- Memphis, Tenn.	3	2
- Miami, Fla.	4	2
- Nashville, Tenn.	7	2
- New York, N.Y.	15	4
- Orlando, Fla.	2	2
- Philadelphia, Pa.	2	2
- Pittsburgh, Pa.	9	2
- St. Louis, Mo.	10	4
- Tampa, Fla.	4	4
- Washington, D.C.	7	2
<u>Columbus</u>		
and:		
- Atlanta, Ga.	5	4
- Boston, Mass.	3	2
- Charlotte, N.C.	4	2
- Chicago, Ill.	15	6
- Los Angeles, Calif.	2	2
- Louisville, Ky.	4	2
- Miami, Fla.	4	2
- New York, N.Y.	14	4
- Philadelphia, Pa.	5	2
- Tampa, Fla.	2	2
- Washington, D.C.	9	2

Comparison of Non-Stop Scheduled Services (cont'd.)

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>OHIO (Cont'd.)</u>		
Between:		
<u>Dayton</u>		
and:		
- Atlanta, Ga.	11	4
- Memphis, Tenn.	2	2
- New York, N. Y.	11	4
- St. Louis, Mo.	10	2
- Tampa, Fla.	2	2
- Washington, D. C.	8	4
<u>Toledo</u>		
and:		
- New York, N. Y.	2	2
<u>Youngstown</u>		
and:		
- Chicago, Ill.	5	2
- New York, N. Y.	2	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>OKLAHOMA</u>		
Between:		
<u>Oklahoma City</u>		
and:		
- Albuquerque, N.M.	2	2
- Chicago, Ill.	7	4
- Dallas, Tex.	26	4
- Houston, Tex.	3	2
- Little Rock, Ark.	2	2
- Los Angeles, Calif.	8	4
- New York, N.Y.	2	2
- Phoenix, Ariz.	4	2
- St. Louis, Mo.	2	2
- San Francisco, Calif.	3	2
 <u>Tulsa</u>		
and:		
- Chicago, Ill.	7	4
- Denver, Colo.	2	2
- Houston, Tex.	5	4
- Nashville, Tenn.	2	2
- St. Louis, Mo.	11	4
- Washington, D.C.	2	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	<u>Average Daily Non-Stop Services (1973 Actual)</u>	<u>Services Assigned at Maximum Earnings (Simulation)</u>
<u>OREGON</u>		
Between:		
<u>Eugene</u>		
and:		
- San Francisco, Calif.	8	2
<u>Medford</u>		
and:		
- San Francisco, Calif.	6	4
<u>Portland</u>		
and:		
- Boise, Idaho	4	4
- Chicago, Ill.	11	4
- Dallas, Tex.	4	2
- Denver, Colo.	14	4
- Los Angeles, Calif.	16	6
- Phoenix, Ariz.	2	2
- Reno, Nev.	6	2
- Sacramento, Calif.	2	2
- San Francisco, Calif.	28	10
- Spokane, Wash.	8	4

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>PENNSYLVANIA</u>		
Between:		
<u>Allentown</u>		
and:		
- Chicago, Ill.	3	2
- Pittsburgh, Pa.	7	2
<u>Scranton/Wilkes Barre</u>		
and:		
- Chicago, Ill.	2	2
- Pittsburgh, Pa.	18	8
<u>Philadelphia</u>		
and:		
- Atlanta, Ga.	25	6
- Boston, Mass.	42	16
- Buffalo, N. Y.	4	2
- Charlotte, N. C.	6	2
- Cincinnati, Ohio	2	2
- Cleveland, Ohio	15	4
- Columbus, Ohio	5	2
- Dallas, Tex.	5	4
- Denver, Colo.	2	2
- Detroit, Mich.	14	4
- Ft. Lauderdale, Fla.	7	2
- Hartford, Conn.	11	4
- Houston, Tex.	2	2
- Indianapolis, Ind.	2	2
- Jacksonville, Fla.	3	2
- Kansas City, Mo.	2	2
- Los Angeles, Calif.	10	2

Comparison of Non-Stop Scheduled Services (cont'd.)

	Average Daily Non-Stop Services (1973 Actual)	Services Assigned at Maximum Earnings (Simulation)
<u>PENNSYLVANIA</u> (cont'd.)		
Between:		
<u>Philadelphia</u> (cont'd.)		
and:		
- Miami, Fla.	14	6
- Minneapolis/St. Paul, Minn.	4	2
- New Orleans, La.	3	2
- Norfolk, Va.	11	6
- Orlando, Fla.	2	2
- Pittsburgh, Pa.	39	12
- Providence, R.I.	7	2
- Raleigh/Durham, N.C.	2	2
- Rochester, N.Y.	3	2
- St. Louis, Mo.	5	4
- San Francisco, Calif.	7	2
- Tampa, Fla.	8	4
- Syracuse, N.Y.	6	2
<u>Pittsburgh</u>		
and:		
- Allentown, Pa.	7	2
- Atlanta, Ga.	15	4
- Baltimore, Md.	12	4
- Boston, Mass.	11	2
- Buffalo, N.Y.	17	6
- Charlotte, N.C.	8	4
- Chicago, Ill.	44	10
- Cincinnati, Ohio	9	2
- Dallas, Tex.	4	2
- Detroit, Mich.	14	6
- Ft. Lauderdale, Fla.	5	4
- Greensboro/High Point, N.C.	2	2
- Harrisburg, Pa.	18	8
- Hartford, Conn.	10	4
- Houston, Tex.	2	2
- Indianapolis, Ind.	5	2
- Knoxville, Tenn.	2	2
- Los Angeles, Calif.	3	2
- Miami, Fla.	10	4
- Milwaukee, Wis.	2	2
- New Orleans, La.	4	2
- New York, N.Y.	61	14

Comparison of Non-Stop Scheduled Services (cont'd.)

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>PENNSYLVANIA (cont'd.)</u>		
Between:		
<u>Pittsburgh (cont'd.)</u>		
and:		
- Philadelphia, Pa.	39	12
- Rochester, N.Y.	4	2
- St. Louis, Mo.	8	4
- San Francisco, Calif.	2	2
- Tampa, Fla.	6	2
- Tri City, Tenn.	2	2
- Washington, D.C.	15	6

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>RHODE ISLAND</u>		
Between:		
<u>Providence</u>		
and:		
- Atlanta, Ga.	2	2
- Chicago, Ill.	4	2
- Cleveland, Ohio	2	2
- Philadelphia, Pa.	7	2
- Washington, D.C.	11	4

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>SOUTH CAROLINA</u>		
Between:		
<u>Charleston</u>		
and:		
- Atlanta, Ga.	6	4
- New York, N. Y.	2	2
- Norfolk, Va.	6	2
- Washington, D. C.	4	4
<u>Columbia</u>		
and:		
- Chicago, Ill.	2	2
- New York, N. Y.	6	2
- Washington, D. C.	2	2
<u>Greenville/Spartanburg</u>		
and:		
- New York, N. Y.	6	2
- Washington, D. C.	2	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

Average Daily Non-Stop Services	Services Assigned at Maximum Earnings
<u>(1973 Actual)</u>	<u>(Simulation)</u>

SOUTH DAKOTA

Between

Rapid City

and:

- Denver, Colo.	6	4
- Minneapolis/St. Paul, Minn.	2	2
- Salt Lake City, Utah	2	2

Sioux Falls

and:

- Denver, Colo.	4	2
- Salt Lake City, Utah	2	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services (1973 Actual)	Services Assigned at Maximum Earnings (Simulation)
<u>TENNESSEE</u>		
Between		
<u>Chattanooga</u>		
and		
- Charlotte, N. C.	6	2
<u>Knoxville</u>		
and:		
- Chicago, Ill.	2	2
- Cincinnati, Ohio	5	2
- Huntsville-Decatur, Ala.	6	2
- Louisville, Ky.	4	2
- Memphis, Tenn.	2	2
- Nashville, Tenn.	9	4
- New York, N. Y.	5	2
- Pittsburgh, Pa.	2	2
- Washington, D. C.	7	4
<u>Memphis</u>		
and:		
- Atlanta, Ga.	18	8
- Birmingham, Ala.	9	4
- Charlotte, N. C.	4	2
- Chicago, Ill.	19	6
- Cincinnati, Ohio	3	2
- Dallas, Texas	15	6
- Dayton, Ohio	2	2
- Denver, Colo.	2	2
- Detroit, Mich.	3	2
- Houston, Texas	3	2
- Indianapolis, Ind.	7	2
- Jackson-Vicksburg, Miss.	16	4

Comparison of Non-Stop Scheduled Services (cont'd)

	Average Daily Non-Stop Service (1973 Actual)	Services Assigned at Maximum Earnings (Cumulation)
<u>TENNESSEE (cont'd)</u>		
<u>Between:</u>		
<u>Memphis (cont'd)</u>		
and:		
- Kansas City, Mo.	8	4
- Knoxville, Tenn.	2	2
- Little Rock, Ark.	31	2
- Los Angeles, Calif.	8	4
- Louisville, Ky.	4	2
- Nashville, Tenn.	23	8
- New Orleans, La.	15	4
- New York, N.Y.	3	4
- St. Louis, Mo.	26	6
- Shreveport, La.	8	4
- Washington, D.C.	8	4
<u>Nashville</u>		
and:		
- Atlanta, Ga.	14	6
- Chicago, Ill.	12	4
- Cincinnati, Ohio	7	2
- Dallas/Ft. Worth, Texas	9	4
- Houston, Texas	2	2
- Knoxville, Tenn.	9	4
- Little Rock, Ark.	2	2
- Memphis, Tenn.	23	8
- New Orleans, La.	2	2
- New York, N.Y.	6	4
- Tampa, Fla.	2	2
- Tulsa, Okla.	2	2
- Washington, D.C.	8	4
<u>Tri-City</u>		
and:		
- Pittsburgh, Pa.	2	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services (1973 Actual)	Services Assigned at Maximum Earnings (Simulation)
<u>TEXAS</u>		
Between:		
<u>Amarillo</u>		
and:		
- Dallas, Texas	6	2
- Kansas City, Mo.	2	2
- Phoenix, Ariz.	2	2
<u>Austin</u>		
and:		
- Midland, Texas	4	2
- Washington, D. C.	2	2
<u>Brownsville</u>		
and:		
- Houston, Texas	5	2
<u>Corpus Christi</u>		
and:		
- Dallas, Texas	4	2
<u>Dallas</u>		
and:		
- Albuquerque, N. M.	11	4
- Alexandria, La.	4	2
- Amarillo, Texas	6	2
- Atlanta, Ga.	31	10
- Baltimore, Md.	5	4
- Boston, Mass.	2	2
- Chicago, Ill.	25	6
- Cincinnati, Ohio	7	2
- Cleveland, Ohio	5	4

Comparison of Non-Stop Scheduled Services (cont'd)

	Average Daily Non-Stop Services (1973 Actual)	Services Assigned at Maximum Earnings (Simulation)
<u>TEXAS (cont'd)</u>		
Between:		
<u>Dallas (cont'd)</u>		
and:		
- Colorado Springs, Colo.	3	2
- Corpus Christi, Texas	4	2
- Denver, Colo.	25	8
- Detroit, Mich.	7	2
- El Paso, Texas	12	6
- Indianapolis, Ind.	5	2
- Jackson/Vicksburgh, Miss.	3	2
- Kansas City, Mo.	18	8
- Las Vegas, Nev.	6	2
- Little Rock, Ark.	14	4
- Los Angeles, Calif.	26	10
- Louisville, Ky.	3	2
- Lubbock, Texas	19	6
- Memphis, Tenn.	15	6
- Miami, Fla.	11	4
- Midland/Odessa, Texas	15	4
- Minneapolis/St. Paul, Minn.	4	2
- Nashville, Tenn.	9	4
- New Orleans, La.	24	6
- New York, N.Y.	25	8
- Orlando, Fla.	2	2
- Philadelphia, Pa.	5	4
- Phoenix, Ariz.	17	6
- Pittsburgh, Pa.	4	2
- Portland, Ore.	4	2
- St. Louis, Mo.	14	6
- San Diego, Calif.	6	2
- San Francisco, Calif.	18	6
- Seattle, Wash.	4	2
- Shreveport, La.	17	4
- Tampa, Fla.	7	4
- Tucson, Ariz.	6	4
- Washington, D.C.	14	4
<u>El Paso</u>		
and:		
- Chicago, Illinois	3	2
- Dallas, Texas	12	6
- Los Angeles, Calif.	14	4
- San Antonio, Texas	10	4

Comparison of Non-Stop Scheduled Services (cont'd)

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>TEXAS (cont'd)</u>		
<u>Between:</u>		
<u>Houston</u>		
<u>and:</u>		
- Atlanta, Ga.	26	8
- Baltimore, Md.	2	2
- Brownsville, Texas	5	2
- Chicago, Ill.	14	4
- Cleveland, Ohio	2	2
- Denver, Colo.	9	2
- Las Vegas, Nev.	6	2
- Little Rock, Ark.	2	2
- Los Angeles, Calif.	14	6
- Memphis, Tenn.	3	2
- Miami, Fla.	7	2
- Midland/Odessa, Texas	2	2
- Nashville, Tenn.	2	2
- New Orleans, La.	36	14
- New York, N.Y.	5	4
- Oklahoma City, Okla.	3	2
- Philadelphia, Pa.	2	2
- Phoenix, Ariz.	1	2
- Pittsburgh, Pa.	2	2
- St. Louis, Mo.	8	2
- San Francisco, Calif.	5	2
- Shreveport, La.	7	2
- Tampa, Fla.	1	2
- Tulsa, Okla.	5	4
- Washington, D.C.	4	2
<u>Lubbock</u>		
<u>and:</u>		
- Albuquerque, N.M.	2	2
- Dallas, Texas	19	6
- El Paso, Texas	4	2
<u>Midland/Odessa</u>		
<u>and:</u>		
- Albuquerque, N.M.	3	2
- Austin, Texas	4	2
- Dallas, Texas	15	4
- Denver, Colo.	2	2
- Houston, Texas	2	2
- San Antonio, Texas	6	2

Comparison of Non-Stop Scheduled Services (cont'd)

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
TEXAS (cont'd)		
Between:		
San Antonio		
and:		
- Albuquerque, N.M.	2	2
- Atlanta, Ga.	7	2
- Chicago, Ill.	7	2
- El Paso, Texas	10	4
- Los Angeles, Calif.	3	2
- Midland/Odessa, Texas	6	2
- New Orleans, La.	3	2
- Phoenix, Ariz.	2	2
- San Francisco, Calif.	3	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>UTAH</u>		
Between:		
<u>Salt Lake City</u>		
and:		
- Casper, Wyo.	2	2
- Chicago, Ill.	15	6
- Denver, Colo.	26	14
- Great Falls, Mont.	2	2
- Las Vegas, Nev.	17	8
- Los Angeles, Calif.	12	6
- New York, N.Y.	2	2
- Rapid City, S.D.	2	2
- Reno, Nev.	7	4
- Sacramento, Calif.	2	2
- San Francisco, Calif.	11	2
- Sioux Falls, S.D.	2	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>VERMONT</u>		
Between:		
<u>Burlington</u>		
and:		
- Detroit, Mich.	2	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at Maximum Earnings <u>(Simulation)</u>
<u>VIRGINIA</u>		
Between:		
<u>Newport-News</u>		
and:		
- Atlanta, Ga.	2	2
- Chicago, Ill.	2	2
- New York, N. Y.	3	2
 <u>Norfolk</u>		
and:		
- Atlanta, Ga.	5	4
- Charleston, S. C.	6	2
- Chicago, Ill.	7	4
- Cleveland, Ohio	2	2
- Jacksonville, Fla.	1	2
- New York, N. Y.	14	6
 <u>Richmond</u>		
and:		
- Atlanta, Ga.	8	4
- New York, N. Y.	10	6

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at Maximum Earnings <u>(Simulation)</u>
<u>WASHINGTON</u>		
Between:		
<u>Seattle</u>		
and:		
- Boise, Idaho	2	2
- Chicago, Ill.	15	6
- Dallas, Texas	4	2
- Denver, Colo.	13	6
- Kansas City, Mo.	2	2
- Los Angeles, Calif.	18	6
- Minneapolis/St. Paul, Minn.	8	4
- New York, N.Y.	5	2
- Omaha, Neb.	3	2
- Reno, Nev.	2	2
- St. Louis, Mo.	3	2
- San Diego, Calif.	2	2
- San Francisco, Calif.	31	10
<u>Spokane</u>		
and:		
- Chicago, Ill.	2	2
- Denver, Colo.	3	2
- Minneapolis/St. Paul, Minn.	4	2
- Portland, Ore.	8	4
- San Francisco, Calif.	4	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at Maximum Earnings <u>(Simulation)</u>
<u>WEST VIRGINIA</u>		
Between:		
<u>Charleston:</u>		
and:		
- New York, N. Y.	2	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services <u>(1973 Actual)</u>	Services Assigned at <u>Maximum Earnings</u> (Simulation)
<u>WISCONSIN</u>		•
Between:		
<u>Milwaukee</u>		
and:		
- Atlanta, Ga.	6	4
- Boston, Mass.	2	2
- Cleveland, Ohio	6	4
- Denver, Colo.	6	2
- Las Vegas, Nev.	1	2
- Los Angeles, Calif.	4	2
- Minneapolis/St. Paul, Minn.	12	4
- New York, N. Y.	16	6
- Pittsburgh, Pa.	2	2
- Tampa, Fla.	2	2
- Washington, D.C.	2	2

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	Average Daily Non-Stop Services (1973 Actual)	Services Assigned at Maximum Earnings (Simulation)
<u>WYOMING</u>		
Between:		
<u>Casper</u>		
and:		
- Salt Lake City, Utah	2	2

U.S. SENATE,
Washington, D.C., May 2, 1975.

Mr. GEORGE W. JAMES,
Air Transport Association,
Washington, D.C.

DEAR MR. JAMES: I have received and reviewed your April 25 letter and the accompanying study relating to possible consequences of deregulation of the scheduled air transport industry. I want to thank you for complying with the subcommittee's request that you undertake a study and for the efforts you and others have made to complete it in a timely fashion.

A preliminary review of the study suggests that basing the study's computer model on the predicted behavior of a monopolist, as was done, materially affects the accuracy and predictive value of the study. This monopolist model does not take into account the fundamental fact that deregulation means there would be a competitive, multi-airline environment, in which any particular airline would have to behave as a competitor, not a monopolist.

Even if your study were based on a model that could reasonably identify "unprofitable" routes in a competitive system, the conclusions you chose to draw in your letter to me may seriously misstate the probable level of air service under deregulation. First, several of the nonstop route segments identified by the ATA as candidates for cessation or reduction of service have in fact already been abandoned by the trunk carriers under CAB regulation. Second, of those segments presently receiving nonstop trunk service, many are simultaneously served by local service, intrastate, or commuter carriers, who would be likely to continue or even increase service if the competing trunk carrier reduced or discontinued its service. Third, a significant number of the segments do in fact now receive connecting, one- or multistop service by trunks, local service, intrastate or commuter carriers, so reduction or discontinuance of nonstop trunk service would certainly not mean cessation of all air service to the communities involved.

One further point. According to United Air Lines, which serves a large percentage of the routes you claim would be abandoned if carriers were free to do so, many of the so-called "unprofitable" nonstop trunk segments are in reality profitable. As United explained to the subcommittee staff, they would continue to be served on a nonstop basis because they are flown in order to feed passengers to other segments or flights which, when taken together, generate sufficient revenues to cover or exceed costs. Even other nonstop segments you identified for possible extinction would still be flown, according to United, because they are used to ferry or position aircraft that are better flown with some passengers than empty. There is every reason to believe, therefore, that the other trunk airlines would make a similar analysis of their so-called "unprofitable" routes.

It is my understanding that many of the points I have raised were discussed with you by the subcommittee staff prior to the release of your study, and that the ATA would make an effort to verify and include then in the final presentation and release of the study itself. In any case, I am sure you would agree that it is important to present a fuller and more accurate analysis than is implied by your April 25 letter to the many governmental, industry and consumer parties who are genuinely interested in the issues of regulatory reform. Accordingly, I would suggest that a copy of this letter be furnished to those who have been or will be furnished copies of the study.

The study and your accompanying conclusions are now being analyzed more fully by the subcommittee, several executive agencies, and by a number of economists at various universities. When these analyses are completed, I will make them available to you.

Thank you for your continuing participation in the subcommittee's inquiry.

Sincerely,

EDWARD M. KENNEDY,
Chairman, Subcommittee on Administrative Practice and Procedure.

AIR TRANSPORT ASSOCIATION OF AMERICA,
Washington, D.C., May 8, 1975.

Hon. EDWARD M. KENNEDY,
U.S. Senate,
Washington, D.C.

DEAR SENATOR KENNEDY: Thank you for your May 2, 1975, letter commenting on the Air Transport Association's April 25 study on "The Consequences of Deregulation of the Scheduled Air Transport Industry." We appreciate the efforts you and your staff have made in reviewing the comprehensive analysis of deregulation of the present airline system which we prepared in response to your request of February 7, 1975.

Based on your May 2 letter, there appears to be a shift in the frame of reference from your original request to us on February 7, in that your interpretation of the study is based on a different premise than your original request to us.

1. In your February 7 letter, which is attached, you asked us for "a list of those city-pairs that are now unprofitable and might be abandoned." We furnished such a list. As requested, the study looked at each route in the present trunk system using the latest available data. It identified 372 nonstop routes where incremental cost exceeded incremental revenue, a condition of unprofitability which highlights such routes as prime candidates for abandonment. These 372 unprofitable trunk routes, together with the 826 subsidized routes of the regional air carriers, comprised the list you requested of scheduled airline routes which "are now unprofitable and might be abandoned."

2. You suggest that our study may be inaccurate because you feel it is based on the "predicted behavior of a monopolist." We believe such a conclusion is incorrect since our analysis was based on the competitive, multi-airline environment actually in being in the present route patterns of 18 trunk and regional air carriers. We attempted neither to contrive a monopolist system nor to recast the present national system of competitive air service. We did, however, extend our analysis of the present system by examining the possibility of increased competition entering the currently profitable routes. The results showed a lowering of profitability on these routes as well as an increase in the number of currently unprofitable routes.

3. You also suggested that our study may overstate the probable decline in air service resulting from deregulation. Mr. Stephen Breyer of your staff made similar points when we provided him with a preliminary review of our study on April 17. However, as indicated in my letter of April 25, some service over the unprofitable routes identified in our study might be continued for such purposes as "feeding heavier traveled routes or aircraft positioning." Nevertheless, as pointed out by United Air Lines, even after taking these factors into account, its judgement is that approximately 22 percent of all United's nonstop routes would likely be abandoned. However, it is our belief that some of the possible effect of deregulation may well be understated in our report when all air carrier routes are considered, since deregulation would encourage a heavier concentration on the more productive city-pair markets and less service in the marginal markets.

In response to the request in your May 2 letter, we will send a copy of that letter, along with our response, to those who were or will be furnished a copy of our original study.

Sincerely,

GEORGE W. JAMES,
Senior Vice President, Economics and Finance.

[Sample of the letters requesting an evaluation of the ATA study:]

U.S. SENATE,
April 29, 1975.

Prof. ROGER SHERMAN,
Department of Economics, University of Virginia,
Charlottesville, Va.

DEAR PROFESSOR SHERMAN: The Subcommittee on Administrative Practice and Procedure, which I chair, has just completed 10 days of public hearings on Fed-

eral regulation of the airlines. During the course of those hearings, Dr. George James of the Air Transport Association of America testified that in his view deregulation would result in substantial reduction of air service to small communities, and promised to undertake an empirical study concerning that assertion. I am enclosing a copy of the completed study and the covering letter from Dr. James.

The subcommittee would find it most helpful if you would undertake to review the ATA study and provide comments to the subcommittee concerning the technical, economic, and policy implications of the study. I would specifically appreciate your views on whether the conclusions stated in Dr. James' letter are in fact supported by the study itself. As an independent economist of recognized ability, your assistance in this regard will be most valuable.

If you have any questions, please contact Mr. Stephen Breyer, special counsel to the subcommittee, at (617) 495-4276 or Mr. Philip Bakes, assistant counsel, at (202) 224-5617.

Thank you for your assistance and cooperation.

Sincerely,

EDWARD M. KENNEDY,
Chairman.

THE CHAIRMAN OF THE
COUNCIL OF ECONOMIC ADVISERS
WASHINGTON

May 1, 1975

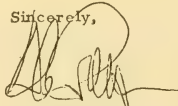
Dear Senator Kennedy:

This is in response to your letter of April 28, 1975, requesting the Council's views on the recent Air Transport Association report, Consequences of Deregulation of the Scheduled Air Transport System: An Analytical Approach and the conclusions stated in Dr. George James' letter of transmittal dated April 25, 1975.

I have asked James C. Miller, Senior Staff Economist at the Council of Economic Advisers in the transportation and regulation area to evaluate that study and the letter of transmittal. His report to me is attached. As you will note, Dr. Miller questions both the adequacy and the conclusions reached by the ATA study. He especially takes issue with the conclusion that deregulation would lead to a substantial reduction in scheduled air service.

Thank you for giving the Council an opportunity to express its views on this important matter.

Sincerely,



Alan Greenspan

Senator Edward M. Kennedy
Chairman, Subcommittee on Administrative
Practice and Procedure
United States Senate
Washington, D. C. 20510



OPTIONAL FORM NO. 10
JULY 1973 EDITION
GSA FPMR (41 CFR) 101-11.6

UNITED STATES GOVERNMENT

Memorandum

TO : Alan Greenspan
Chairman

DATE: May 1, 1975

FROM : James C. Miller III
Senior Staff Economist

SUBJECT: Air Transport Association's Analysis of the Consequences
of Airline Deregulation

This is in response to your request for my assessment of the Air Transport Association's (ATA's) recent report, Consequences of Deregulation of the Scheduled Air Transport Industry: An Analytical Approach, and whether it supports the conclusions contained in Dr. James' letter of transmittal to Senator Kennedy dated April 25, 1975.

The ATA study is in response to Senator Kennedy's request for the industry to identify those "scheduled routes where service might be reduced or eliminated if each airline could set its own prices and could enter or exit any market at will" (Dr. James' letter, p.1). The study concludes that of the 994 trunk-carrier routes analyzed, "372 could be candidates for elimination under deregulation, while nearly all of the remaining 622 could experience sharp curtailment of service" (letter, p. 1). The ATA also suggests that the 826 nonstop routes of the local service carriers identified as presently receiving subsidy would be candidates for elimination under deregulation. The ATA therefore concludes that, "[i]t is conceivable that the 1,198 unprofitable, and subsidized, routes might not survive in a deregulated environment except in limited instances as an adjunct to more profitable routes or under large subsidy payments by cities or the federal government" (letter, p. 2).

This memorandum evaluates the operations research model on which most of the ATA's conclusions are based, ATA's interpretation of that model, the ATA's other analysis, and the issue of cross-subsidy.



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- 2 -

Lockheed's Airline System Simulation^{1/}

With respect to the effects of deregulation on trunk airline service, the ATA's conclusions are based primarily on Lockheed's Airline System Simulation ("simulation" or "model"). The development of this model was begun in 1959 under the overall direction of William A. Gunn. It was improved during 1960 and 1961 and became operational at that time. In its present configuration the model is capable of simulating an airline routing network of up to 250 city pairs. The model's objective is to maximize (net) earnings and its major outputs are the number and kinds of (optimal) aircraft and the routes served.

As airline simulations go, the Lockheed model is a good one, being widely used and well respected. However, in my judgement models of this type should be used with extreme caution when put to special uses for which they were not primarily designed, such as identifying markets likely to be abandoned under "deregulation".^{2/} Models such as these may be valuable tools for designing new aircraft (payload, range, et cetera) or for suggesting to airline scheduling officials which markets to consider exploiting and which to consider abandoning, but they are inherently limited when it comes to answering specific questions such as whether the route between points A and B is presently uneconomic, much less whether under a changed market environment (i.e., deregulation) the route would be uneconomic and, therefore presumably, abandoned.

1/ This discussion is based on descriptions found in the following publications: Consequences of Deregulation of the Scheduled Air Transport Industry: An Analytical Approach (Washington: Air Transport Association, April 1975); Lockheed Airline System Simulation (Burbank: Lockheed-California Company, n.d.); Revisions to 1969 Lockheed Indirect Operating Expense Method (Burbank: Lockheed-California Company, July 1974); and William A. Gunn, "Airline System Simulation," Operations Research (March 1964), pp.206-29.

2/ For purposes of this memorandum, "deregulation" may be regarded as the removal of all economic (but not safety) regulation and subjecting the industry to the antitrust laws. This appears to be what the ATA means by the term. It is notable that none of the Administration proposals presently under review contemplate this extreme form of deregulation. Although regulatory controls would be substantially reduced, some economic regulation would remain.

- 3 -

A first problem is the degree of realism that these models are able to achieve. In my Ph.D. dissertation, ^{1/} for example, I attempted to construct a "realistic" airline routing model -- one that accounted for indivisibility problems as well as for consumer preferences concerning the time of day they travel. The result was that a single run of this one city-pair market simulation took over half an hour, utilizing the entire 32 thousand word core of a Burroughs 5500 computer. Since the complexity of the problem tends to increase geometrically with the number of city pairs examined, any model which accommodates up to 250 city pairs must make simplifying assumptions. As I concluded later in a work based on that dissertation,

"The utilization of scheduling models...to appraise airline efficiency awaits the development of technically superior, operational programs. But just as importantly, much work needs to be done in the formulation and testing of behavioral assumptions, for only then can we place a great deal of confidence in our results."^{2/}

In terms of the Lockheed model's specific assumptions (as they relate to the question of uneconomic flight segments), the cost issues are perhaps the most important. While the simulation bases its decisions to add route segments on "marginal costs," included in these marginal costs are depreciation expenses (ATA study, p. 5). The reason is that the simulation "purchases" aircraft to assign to the routes brought into the system. During off-peak hours, the relevant (opportunity) cost of equipment may well be zero and thus inclusion of depreciation in the decision calculus tends to eliminate some routes that might well be served by a profit-maximizing air carrier. Certainly we observe a tendency today for "marginal" routes to be served during off-peak hours. A similar overestimation of costs on "marginal" routes may obtain when aircraft have to be "positioned" to meet the daily cycle, for maintenance, and for other purposes.

^{1/} James C. Miller III, Scheduling and Airline Efficiency (Charlottesville: Department of Economics, University of Virginia, 1969).

^{2/} James C. Miller III, "A Time-of-Day Model for Aircraft Scheduling," Transportation Science (August 1972), p. 243.

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On the revenue side, there is likewise a problem of allocation. As is well known, carriers are perfectly willing to engage in the practice of scheduling "feeder" routes, even though the conventionally-apportioned costs of such routes may fall short of the revenues conventionally attributed to them. The reason is that many feeder passengers connect to other flights of the same carrier on which profits would be recorded. In other words, the carrier earns more money by scheduling allegedly uneconomic services. This is not to suggest that there is cross-subsidization of routes: merely, the conventionally recorded revenue/cost margins do not reflect the relevant revenue/cost margins (i.e., those perceived by the carrier). While the sequential mapping of flights accomplished by the model takes into account some of this phenomenon, it may not accommodate it all and therefore may identify many routes as uneconomic which a profit-maximizing carrier would choose to operate.

Finally, as will be stressed in the next section, the model is incapable of simulating competition. It is designed for an analysis of a single firm. The model can simulate the reaction of rivals with what appears to be either of two extreme assumptions (at the option of the user): (a) completely passive behavior (i.e., rival firms make no change in their scheduling plans when the initiating carrier makes changes), and (b) proportional market shares (i.e., rival firms react to any schedule change so as to maintain a fixed market share). Under the second assumption, the result is clearly a price-regulated monopoly solution in each market.^{1/} Under conditions where there is no rival (as must be the case in the analysis performed for ATA), the same (regulated-monopoly) result obtains.

ATA's Interpretation of the Simulation

The interpretation the ATA has placed on the simulation excessively overstates the extent of route abandonments that might take place under deregulation. As mentioned above, the model is capable of simulating price-regulated monopoly, but not free and open competition.^{2/}

^{1/} See George W. Douglas and James C. Miller III, Economic Regulation of Domestic Air Transport: Theory and Policy (Washington: The Brookings Institution, 1974), Chapter IV.

^{2/} This, interestingly, contradicts the usual industry assessment that the result of deregulation would be excess (not insufficient) competition.

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At best the model can identify uneconomic routes -- and, as I have indicated, there is reason to believe that the model tends to overstate these.

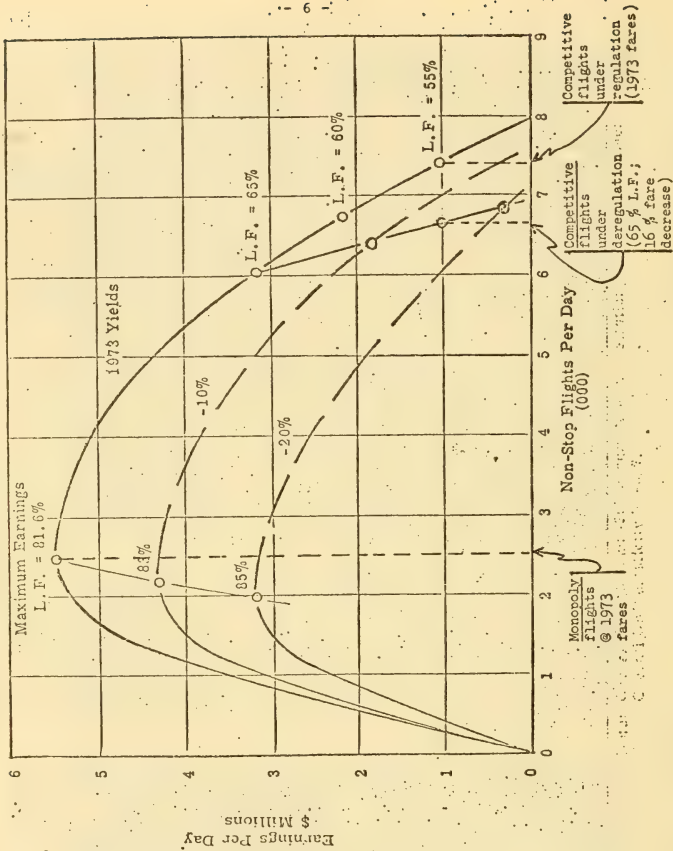
A better idea of what the simulation accomplishes can be obtained by referring to the attached figure, adapted from Figure 8 of the ATA study. As shown, under the prices prevailing in 1973, a nation-wide (price-regulated) monopoly air carrier (or a perfectly administered price-regulated airline cartel) would schedule 2,500 flights daily, would realize average load factors of 81.6 percent, and would earn net revenue of \$5.5 million per day (see also ATA study, p. 7). If all fares were reduced (the same percentage), the monopoly level of flights and earnings would fall, but average load factors would increase (reference curves labeled "-10%" and "-20%"). These levels of operations ATA contrasts with 1973 regulated operations of approximately 7,300 daily flights, a system-wide average load factor of 55.7 percent, and approximately \$1.1 million in daily net earnings.^{1/} If there were deregulation, according to the ATA, the model would indicate a deletion of approximately 4,800 daily flights based on a 1973 level of operations. With a fare reduction of 10 percent, approximately 5,130 flights would be eliminated; and with a 20 percent fare reduction approximately 5,322 flights would be dropped. The ATA also concludes that in eliminating the flights the industry would abandon 372 non-stop markets at 1973 fares, 471 non-stop markets at a 10 percent fare decrease, and 564 non-stop markets at a 20 percent fare decrease (ATA study, p. 7).

The logic of ATA's assumption of a price-regulated monopoly outcome under deregulation can be tested with common sense. An earnings level of \$5.5 million per day (1973 fares) translates into yearly earnings of approximately \$2,008 million. On the basis of 1973 total domestic trunkline investment of \$8,051 million, this translates into a rate of return on investment (ROI) of approximately 25 percent.^{2/} Presumably, however, in equilibrium, the

^{1/} The 1973 levels of flights and earnings are approximate since they are read from the figure; the ATA does not present the data.

^{2/} The ATA study is not clear whether these earnings are profits before interest payments on long-term debt and before taxes, after interest payments on long-term debt but before taxes, or before interest payments on long-term debt but after taxes. Comparisons of ROI would of course depend on the definition used.

Adapted from: Air Transport Association, Consequences of Deregulation of the Scheduled Air Transport Industry: An Analytical Approach (April 1975), Figure 8.



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industry would reduce its investment base consonant with the lower level of operations. Assuming a proportional reduction, the (1973) investment base would be approximately \$2,757 million, indicating a ROI of approximately 73 percent. To presume that under conditions of free entry a 73 percent ROI would not attract new entrants is preposterous!

What would likely occur under deregulation can be inferred from the graph. First, assuming for the sake of argument that 1973 fares prevailed and that cost levels did not change, increased scheduling would occur until load factors had been driven down to approximately 55 percent -- the 1973 break-even level. At that point there would be approximately 7,400 flights daily and the industry's daily earnings would be approximately \$1.0 million. Now, assuming again that costs did not change, on the basis of my work with George Douglas,^{1/} one might predict that average fares (or average yield) would decrease approximately 16 percent, raising the break-even load factor to approximately 65 percent. As can be inferred from the figure (see added straight line connected to "L.F. = 75%" point on 1973 curve), the result would be a decrease in scheduling from approximately 7,300 flights per day to approximately 6,800 flights per day.^{2/} Using ATA's 1973 route abandonment figure of 372 and applying a rule of proportionality, this would imply the abandonment of approximately 39 non-stop city-pair markets. However, any decrease in costs under deregulation (less circuitous routings, greater management efficiency, et cetera) would shift all of the curves to the right. Depending on the degree of efficiency gains, the result might well be an increase in total scheduling and an increase in the number of city-pair markets served under deregulation, not decreases.

ATA's Other Analysis

The ATA also identifies 1,198 local service carrier routes which are presently receiving subsidy and thus might not be served if there were deregulation. While

^{1/} Douglas and Miller, ibid.

^{2/} The exact position of this line cannot be ascertained without access to the simulation. The position shown is an informed judgement. (It must slope downward to the right since, with lower fares and more passengers, scheduling must increase in order to maintain the same load factor level.)

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undoubtedly some of these routes might be deleted under deregulation, it would be a mistake to conclude that under deregulation all, or even a substantial part, of them would receive no air service.

First, the CAB's subsidy program (in theory at least) covers all the losses the local service carriers incur in serving these routes. Deregulation does not necessarily imply elimination of the subsidy program.^{1/} With continued subsidy there is little reason to believe that carriers would not willingly serve the substantial majority of these markets.^{2/}

Second, the combination of subsidy and regulation has tended to escalate the costs of the local service carriers. An example with which I am familiar illustrates. In 1973 Texas International Airways, a local service carrier, applied to the CAB to delete service at College Station, Texas. Reason? Texas International was losing its market to a small College Station-based commuter, Davis Airlines. Both were offering service to Dallas and to Houston. Both charged \$27 to Dallas, while Davis's \$20 rate to Houston was a dollar less than Texas International's. But while Davis was making money at these rates, the Board was forced to conclude that Texas International was losing \$41 per enplaned passenger.^{3/} In short, while Davis's cost per passenger was in the neighborhood of \$20-\$27, Texas International's cost was in the neighborhood of \$62-\$68. Thus, under deregulation the local service carriers might well become more efficient and thus be able to serve some markets now receiving Federal support without the need of subsidy.

Third, even if local service carriers abandoned these markets one must not overlook the outstanding success of the (unregulated) commuter airlines in providing service to small communities and serving low-density markets. According to the commuter airlines' trade association,¹³¹ commuter airlines listed schedules in the October 1, 1974 issue of the Official Airline Guide. Of the 665 airports

^{1/} The regulatory reform proposals the Administration presently has under review do not alter the Board's subsidy program.

^{2/} Indeed, if the subsidy program were improved, then many more routes might receive service for the same cost to the Federal Government. [See George C. Eads, The Local Service Airline Experiment (Washington: The Brookings Institution, 1972).]

^{3/} See CAB Order 73-4-49 (April 10, 1973).

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analyzed, 210 (31.6 percent) were served exclusively by commuter airlines; 256 (38.5 percent) were served exclusively by CAB-certificated airlines; and 199 (29.9 percent) were served jointly by certificated and commuter airlines. In serving a total of 409 airports, the commuter airlines served over 1,530 city-pair markets.^{1/} These unregulated carriers have accomplished this record despite constraints on the size of aircraft they may fly.^{2/} One must conclude that of local service markets that were abandoned under deregulation, most of them would be picked up by commuter carriers.

The ATA also presents an analysis of flight segment load factors and concludes that raising system load factors from 55.7 percent to 60 percent would have required the elimination of 144,000 (or 37 percent of all) flights during the month of August 1973, and raising average load factors to 65 percent would have required the elimination of 226,000 flights (ATA study, Figure 11).

This analysis is grossly misleading. First, it assumes that passengers on deleted (low-load factor) flights are lost entirely. In markets where flights are reduced (but not eliminated), many of these passengers would travel on the remaining flights; although this would raise the system average load factor, the ATA analysis ignores the effect. Second, an increase in load factors would presumably be accompanied by a fare reduction. Although waiting time would increase, the full cost of service (i.e., ticket price plus cost of waiting) would diminish. This would bring forth additional passengers and raise load factors -- another important effect the ATA analysis ignores. Finally, as mentioned before, deregulation may be expected to increase carrier efficiency (lowering costs) so that even with the increased system average load factor the amount of scheduling might actually increase.

^{1/} National Air Transportation Association, "AirTran News" (April 1975), p. 16.

^{2/} CAB Part 298 regulations limit commuters to operating aircraft of not more than 30 passengers and not more than 7,500 pounds payload. (Exceptions to these limitations are occasionally granted on a case-by-case basis.)

The Issue of Cross-Subsidy

Underpinning the ATA's conclusion that there would be significant abandonment of service is the assumption that the industry is presently characterized by a significant degree of cross-subsidy. Such an assumption is inappropriate. First, the work Douglas, I, and some others have done suggests that the extent of cross-subsidy presently existing is miniscule. For example, the major alleged source of cross-subsidy is in the structure of fares with respect to distance (i.e., long-haul flights subsidize short-haul flights). However, taking into account the fact that directly subsidized markets are predominantly short-haul and the "feeder" characteristic of scheduling described above, average load factors show a monotonic decrease with respect to distance, consistent with the argument that carriers, through non-price competition, configure scheduling so as to approximate break even, whatever the distance. Second, I understand from experts on CAB certificates that a large proportion of the routes served by trunk carriers which are alleged to be uneconomic are capable of being abandoned without CAB approval. It is unreasonable to assume that carrier management views their respective firms as eleemosynary institutions. If they do, then surely their stockholders should be made aware of this fact!

To the extent that cross-subsidy does obtain, on economic efficiency grounds it ought to be eliminated.^{1/} There is no such thing as a "free" lunch. If some uneconomic services are being provided, this means that travelers on "profitable" routes are paying excessive fares. Besides the efficiency question, there is an equity problem. In the words of Richard Caves, "there is no reason why impoverished grandmothers flying from New York to Los Angeles should be the ones to subsidize well-off businessmen traveling between small towns."^{2/} Moreover, cross-subsidy is a hidden subsidy. It would appear that from the standpoint of economic efficiency, equity, and rational decision making, the subsidy should be made explicit.

^{1/} Importantly, the CAB has concluded that cross-subsidy is contrary to the public interest and has taken steps to eliminate whatever remains. See CAB Order 73-3-82 (March 18, 1974).

^{2/} Richard E. Caves, Air Transport and Its Regulators: An Industry Study (Cambridge: Harvard University Press, 1962), p. 436.

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If it is in the national interest to provide service that otherwise would not be provided, then there should be a Federal direct subsidy. If the interest is "regional", then perhaps States should defray the costs; if the interest is purely local, then communities should provide the support.

Conclusions

While the ATA has made a bold attempt to identify the services that might be abandoned under deregulation, its analysis is grossly wide of the mark. First, simulation models, calibrated on industry performance under regulation, have limited usefulness in predicting outcomes under deregulation. The particular model utilized by the ATA, while reputable, incorporates several assumptions that may lead to an overstatement of uneconomic routes. Second, the ATA has misinterpreted what the model accomplishes. While the ATA claims the model simulates competition it does nothing of the sort; rather, it simulates a price-regulated monopolist. Third, to the degree the model's outcome can be interpreted, it suggests that, given the existing cost level, deregulation would lead to only a minor decrease in service; efficiency gains under deregulation might well result in more, rather than less, service. Fourth, while under deregulation some city pairs might lose service by the certificated (trunk and local service) carriers, there is good reason to believe that commuter-type (scheduled) airlines would provide replacement service.

Finally, the argument that under deregulation city pairs would lose service assumes that there exists a considerable degree of cross-subsidy. Theory and evidence does not support this view, and in any event the Board has enunciated a policy of purging it from the system. Cross-subsidy is economically inefficient, inequitable, and, given its hidden nature, tends to lead to inefficient political decision making. To the degree there is a public interest in providing services that otherwise would be abandoned, such support should come directly from the government.

EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON WAGE AND PRICE STABILITY
WASHINGTON, D.C. 20506

May 1, 1975

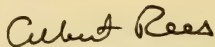
Honorable Edward M. Kennedy
Chairman, Subcommittee on
Administrative Practice
and Procedure
Committee on Government Operations
United States Senate
Washington, D. C. 20510

Dear Senator Kennedy:

As requested by your letter of April 28, I have had my staff analyze the Air Transport Association Study "Consequences of Deregulation of Scheduled Air Transport Industry." I am attaching two staff memos by George Eads which contain his reaction to the ATA analysis. As you will see, Mr. Eads concludes that the ATA simulation provides no useful information about the likely effects of "deregulation" since the system being simulated by the ATA bears no resemblance to the current U.S. air transport system. Specifically, the model simulates the behavior of monopolist; we currently have a system with multiple competitors.

I hope this material will be of assistance to you.

Sincerely,



Albert Rees
Director

Enclosures

EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON WAGE AND PRICE STABILITY
WASHINGTON, D.C. 20506

April 29, 1975

MEMORANDUM TO: Albert Rees, Director
Council on Wage and Price Stability

FROM: George Eads, Assistant Director *g.e.*
Government Operations and Research

SUBJECT: Analysis of the ATA Simulation Model:
"Consequences of Deregulation of the
Scheduled Air Transport Industry"

In drafting legislation to reform economic regulation of the airline industry, we in the Administration have always been aware that a balance must be struck between preserving those features of the current system that are necessary to protect the public interest while modifying those which do not. We welcome the input of the Air Transport Association. We believe that they provide a perspective that needs presenting.

However, the current ATA effort titled "Consequences of Deregulation of the Scheduled Air Transport Industry" does nothing to aid us in settling these admittedly complex issues. It raises, as though they were novel, analytical issues that have long been settled as the result of extensive study, evidentiary hearing, and cross-examination. In particular, it raises the specter of wholesale route abandonment and flight curtailment as a result of the elimination of "cross-subsidy," a concept that the Civil Aeronautics Board itself discredited as a workable feature of the current air transport system in its decision in Phase 9 of the Domestic Passenger Fare Investigation. ATA resurrects this argument in the context of an extremely sophisticated simulation of what purports to be the current air transport network. However, as I will explain, the system being simulated is not the current air transport system but one which the Congress discarded as an option when it passed the Civil Aeronautics Act of 1938.

The system being simulated is one in which there is a single monopoly airline, subject to price regulation by the Civil Aeronautics Board, free to pick and choose which routes to enter and exit, and totally protected from

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entry by any other competitor. The model indicates that this monopolist, if free to maximize his dollar profits at this fixed fare level, will do so by dropping certain routes entirely and by cutting back flights on other routes, thereby raising his average load factor substantially. The profits that this monopolist could earn under such a system would indeed be enormous -- approximately \$2 billion during the simulation year (1973).

This result is by no means a novel one. The analytical proof was demonstrated in an article by Professor White of Princeton University titled "Quality Variation When Prices Are Regulated" (Bell Journal, Autumn 1972). In a paper delivered in the Fall of 1972 at a Brookings Conference, I presented evidence to confirm the proposition that load factors in monopoly markets are indeed higher than load factors in competitive markets provided prices are regulated but scheduling is not. The ATA simulation provides an indication of what the magnitude of such a load factor increase might be in such an idealized system and how profitable the monopolist would find this state of affairs. It conclusively demonstrates that such a scheme of regulation -- monopoly with prices regulated, entry (save for the monopolist) blockaded, and exit by the monopolist totally free -- is undesirable public policy.

The simulation also shows the potential magnitude of the profits that might be available to support cross-subsidization by such a monopolist -- approximately \$1.6 billion -- in the event that the CAB could indeed force him to serve routes that the model indicates are in some sense unprofitable. (I would note that the apparent unprofitability of many routes is an artifact of the simulation. More on this below.) However, as the CAB found in the recent New England Service Investigation, neither the Board nor any other regulatory agency can compel an unwilling carrier to provide adequate, responsive, efficient, money-losing service where the carrier can effectively lower its costs by degrading the quality of the service (See Board Order 74-7-70, pp. 10-11). The entire history of the local service airline subsidy program and the experience of rail passenger service in this country over the last half-century provides ample additional evidence of the validity of this finding.

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This is what the simulation is. What is it not? Most specifically, it is not a simulation of the airline system we have in the United States at this time. Indeed, the closest domestic analog would appear to be the Bell System. The FCC, therefore, might find the model useful in its struggle to understand the consequences of allowing competition in this system. However, this Nation's airline system is not a monopoly, but is composed of many carriers. The CAB regulates maximum and minimum fares, controls entry into new city-pair markets and exit from these city-pair markets. With regard to entry and exit, however, the CAB's effective authority over nonstop service in city-pair markets is quite limited. Carriers currently have -- and exercise -- a great deal of freedom to enter or exit from a large variety of markets under the broad authority conferred upon them by their operating certificates. Furthermore, since the Board cannot control the number of flights a carrier offers in a particular city-pair market, carriers are free to reduce schedules substantially from their current levels without Board approval. The fact that they currently operate what, according to the model, are vast numbers of unprofitable flights and routes -- not because of CAB compulsion but because they find it is in their best economic interest to do so -- only casts further doubt upon the credibility of the ATA results.

We have it on the word of the CAB (see its Phase 9 opinion in the Domestic Passenger Fare Investigation) that this scheduling competition, given fixed price, tends substantially to eliminate excess profits on competitive routes by driving load factors down to the breakeven level (where breakeven is defined to include a normal rate of return). Certain major carriers -- principally, TWA, American, and United -- have argued that this scheduling competition is so fierce that it does more than eliminate excess profits on these competitive routes. According to these carriers, such practices produce actual losses absent capacity agreements which would control this level of competition. A CAB Administrative Law Judge recently found this latter contention to be contrary to fact in ruling against such agreements. (See Initial Decision of Administrative Law Judge E. Robert Seaver, Capacity Reduction Agreements Case, Docket 22908, served November 18, 1974.)

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The crucial point to understand is that if scheduling competition tends sharply to limit the level of excess profits that a competitive airline system generates, the ability of this system to support a large amount of unprofitable service is substantially impaired. Thus, the ability of the airline industry to operate in a competitive environment -- competitive as to schedules, at least -- while avoiding the staggering level of losses that the ATA simulation predicts should today be occurring demonstrates conclusively that the simulation is faulty both as a description of current reality and as a prediction of future behavior.

What of the apparently "unprofitable" routes and flights that the model finds? I would suggest that, given the way the current domestic air transport system actually operates, these are more likely artifacts of the simulation than reflections of reality. In performing any simulation of this sort, the designer of the model must make many simplifying assumptions. In the real world, many costs are common to more than one flight or more than one route, yet the simulation demands that an artificial allocation be made. Furthermore, certain routes generate traffic for the system as a whole, yet no means exists to properly allocate the revenues produced by this traffic to these routes. Thus, certain routes appear to be more profitable than they are in reality; others appear to be losing money when they, in fact, are not. This is not the fault of the simulation -- arbitrary assumptions are necessary if the simulation is to be made to work. But that is why we call the exercise a "simulation." A knowledgeable airline scheduler familiar with the operational characteristics of his particular system would recognize these anomalies and disregard them. A person unfamiliar with the system -- or a computer mechanically adding up "profits" and "losses" -- will not. That is why in the real world, airline scheduling is performed not by computers employing simulation models, but by skilled and experienced men who use such tools as computers and simulation models merely as initial inputs into the process.

This is not to say that all the loss markets and flights indicated by the ATA simulation are, in reality, profitable. Under a less regulated system where both entry and exit were freer, certain flights and certain cities would be dropped by the carriers currently providing them. After all, the current route system is a somewhat crazy patchwork that originated in the days when the DC-3 was

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the Nation's largest and most efficient airliner. This is not to say, however, that all these cities that would be dropped would lose all airline service. Certain nonstop flights would be downgraded to one-stop. Certain routes would fit better into the route systems of carriers other than those currently providing service over them. Certain others would be picked up by commuter carriers whose specialized operations and smaller aircraft allow them to tailor service closely to the needs of the small communities.

But when all this had happened, some city-pairs would indeed have service reduced and others might well lose all service. However, this would not occur because of the elimination of cross-subsidy -- cross-subsidy does not now exist to any substantial degree -- but would result from a bidding down of fares. As fares fell, the breakeven load factors would increase. As the CAB found in Phase 6B of the Domestic Passenger Fare Investigation, this would induce carriers to reduce the number of flights they offer, thereby raising actual load factors. In some cases, this new higher breakeven factor might be unsustainably high, rendering nonstop service on that particular segment impossible. In this latter case, if it were determined that the public interest demanded a continuation of service, public subsidies should be voted. These subsidies would, however, need to be nowhere near the one billion dollars per year level mentioned by the ATA document.

EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON WAGE AND PRICE STABILITY
WASHINGTON, D.C. 20506

May 1, 1975

MEMORANDUM FOR: Albert Rees, Director, Council on
Wage and Price Stability

FROM: George Eads, Assistant Director *ME.*
Government Operations and Research

SUBJECT: Further Analysis of the ATA Simulation
Model: "Consequences of Regulation of
Scheduled Air Transport Industry"

Since sending you my memorandum of April 29, I have continued to analyze the ATA simulation results in more detail. In particular, I have had my staff focus on the results as they apply to one state -- Arizona. I made this choice because, having grown up in Arizona, I am quite familiar with the pattern of air service that exists there.

Figure 1 is taken from the ATA report and shows the routes which would "lose" service under "deregulation." Table 1 shows the reduction in service predicted by the model on those Arizona routes that would be retained.

The first thing that should be noted about Figure 1 is that it includes (as do all of the ATA state maps) the subsidized services currently provided by the regional (i.e., "local service") carriers. The implication is conveyed that these services would be lost under "deregulation." This is clearly a false issue calculated to raise scare headlines. We have made it very clear that any Administration bill will not propose an end to the current subsidy program. This is not to say that considerable improvement could not be made in the program. Both the CAB (in its study Service To Small Communities) and I (in my Brookings book The Local Service Airline Experiment) have shown how better service could be provided at lower cost to the Government by major changes in the way the current subsidy program is run. The relevant point, however, is that none of this service will be in any danger from "deregulation."

Figure 1

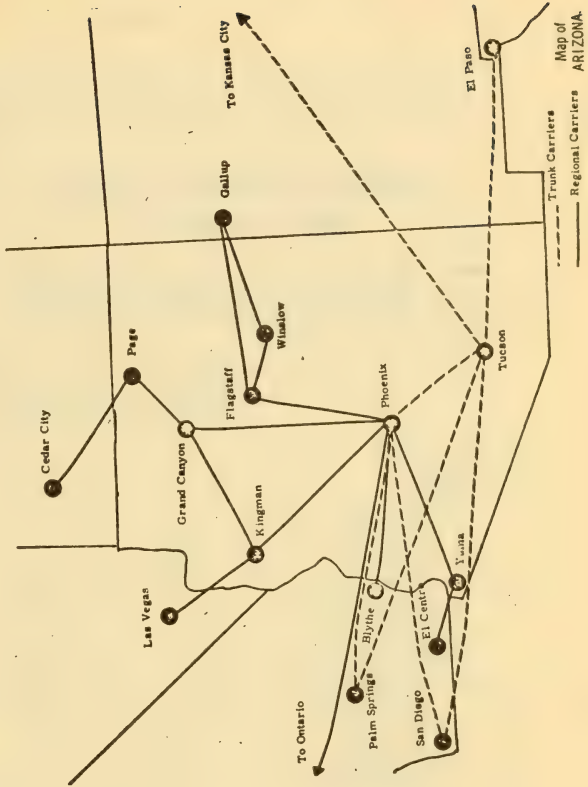


Table 1

COMPARISON OF NON-STOP SCHEDULED SERVICES
1973 Actual vs. Simulated for Profit Maximization

Flights Per Day - Both Directions

NOTE: This comparison does not include city-pairs in which profit maximization would result in no service, and it does not indicate the public service consequences of elimination of adequate frequencies to meet peak demand.

	<u>Average Daily Non-Stop Services (1973 Actual)</u>	<u>Services Assigned at Maximum Earnings (Simulation)</u>
<u>ARIZONA</u>		
<u>Between:</u>		
<u>Phoenix</u>		
<u>and:</u>		
- Albuquerque, N. M.	4	2
- Amarillo, Texas	2	2
- Chicago, Ill.	18	8
- Dallas, Texas	17	6
- Denver, Colo.	18	8
- El Paso, Texas	4	2
- Houston, Texas	1	2
- Kansas City, Mo.	3	2
- Las Vegas, Nev.	14	6
- Los Angeles, Calif.	29	18
- Minneapolis/St. Paul, Minn.	2	2
- New York, N. Y.	6	2
- Oklahoma City, Okla.	4	2
- Portland, Ore.	2	2
- St. Louis, Mo.	7	4
- San Antonio, Texas	2	2
- San Francisco, Calif.	9	6
- Washington, D. C.	4	2
<u>Tucson</u>		
<u>and:</u>		
- Chicago, Ill.	9	4
- Dallas, Texas	8	4
- Los Angeles, Calif.	10	4
- San Francisco, Calif.	4	2

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This leaves seven routes that are identified as "unprofitable." These are Phoenix-Palm Springs, Phoenix-San Diego, Phoenix-Tucson, Tucson-El Paso, Tucson-Kansas City, Tucson-Palm Springs, and Tucson-San Diego.

I have directed Roger Mallet to examine the pattern of air service that these routes received during July 1973, the mid-point of the year the ATA chose to simulate. Appendix A lists all flights in both directions together with the flight itineraries.

As you can see, with only one exception (American Airlines Flight 374 from Tucson to San Diego), all flights offered during July 1973 were segments of longer flights. They are thus, subject to the cost and revenue allocation problems I mentioned in my memo of April 29. This means that any indication by the model of "unprofitability" needs to be examined very carefully.

Let us focus particularly on the Tucson-Phoenix segment. During July 1973 there were 18 flights per day between Phoenix and Tucson and 17 flights per day between Tucson and Phoenix. (These totals do not include four daily nonstop flights in each direction by an unsubsidized commuter carrier which has total freedom to enter and exit the market at will.) All of those 35 daily flights were offered as segments of longer flights. In many cases, these flights clearly were "feed" flights. For example, American Airlines Flight 177, Boston-New York/JFK-Phoenix-Tucson is clearly operated as a means of providing single-plane service to both cities from the East Coast. It is no more run by American solely because of its Phoenix-Tucson segment than it is because of its Boston-New York segment (which I am certain is "unprofitable" judged by itself).

This example reflects the fact that airlines do not schedule flights on a city-pair basis. They are scheduled on a total flight basis. That is, what the scheduler tries to achieve is a situation in which the revenues attributable to a particular flight equal or exceed the costs attributable to that flight. In deciding whether or not to include a particular segment (e.g., Tucson-El Paso segment on American's Flight 116 with an itinerary consisting of San Francisco-Phoenix-Tucson-El Paso-Chicago-Newark), the scheduler decides

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what additional traffic he can pick up by including the segment (he doesn't particularly care whether this is local Tucson-El Paso traffic or whether it travels beyond El Paso -- it is the revenue he is concerned about) and what additional costs American will incur by serving the segment. This additional cost may or may not be related to what the CAB terms "direct operating expense." "Direct operating expense" is merely an accounting convention. If attributable revenues exceed attributable costs, the segment is included. If not, it is deleted.

Deleting such a segment on a given flight would only require CAB approval if it represented the carrier's only service at either of the two cities under authority of a given "route segment." It is important to note that CAB approval often is not required either to add the first nonstop or delete the last nonstop in a given city-pair market. For example, nothing in American Airlines' certificate currently compels it to offer nonstop service in any of the Arizona city-pairs mentioned in the ATA simulation. Indeed, during July 1973, American eliminated, without seeking CAB approval, the Palm Springs segments from Flights 159, 221, and 622, thus ending nonstop service by American between Palm Springs, on the one hand, and Phoenix and Tucson, on the other.

To see how widespread this carrier authority to add and delete service currently is, I had Mike Roach check the certificates of the carriers serving the Arizona markets. He informs me that, perhaps with the single exception of Frontier's Phoenix-Tucson service, the carriers involved are currently free to terminate service over all the indicated segments. In other words, American, under its current certificate, has no obligation to provide service in any of the six city-pairs where it currently is certificated (it does not hold a certificate allowing it to fly between Kansas City and Tucson).

This brings me to my final point -- service reductions on segments that the ATA model predicts would be retained. As you can see, in many cases, the hypothetical reductions indeed would be massive. Chicago-Phoenix service would be cut from 18 to 8 flights per day. Again it is vital to be clear about what is and is not being simulated by the ATA model. As I indicated

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in my April 29 memo, the ATA model simulates the response of a monopolist. I am not surprised that a monopolist, if free to drop all flights he didn't wish to offer, and protected from entry by other carriers, would choose substantially to curtail service. He might even drop the amount of service that the ATA model indicates.

However, the current air transport system is not a monopoly. It is a competitive system where carriers face controlled prices, are free to determine the amount of service they wish to provide at these controlled prices, and are even free to exit from many city-pairs without explicit permission of the CAB if they find their operations unprofitable. The fact that they currently choose to operate large numbers of flights and routes which the simulation indicates are "unprofitable" indicates not that there is cross-subsidization in the system, but that the simulation is faulty in the way it determines whether a particular route or flight is "profitable" or "unprofitable."

no Tuscan. Arizona

SCHEDULED DAILY AIR SERVICE PROVIDED TO PHOENIX AND TUCSON, ARIZONA
AS OF JULY 1, 1973

CITY-PAIR MARKET	TOTAL MARKET SERVICE Non-stop One-stop Multi-stop Flights Flights Flights	DIRECTION	CARRIER NUMBER	FLIGHT	INDIVIDUAL CARRIER SERVICE	FLIGHT ITINERARY	Comments
PHX-TDS	18 - 0 - 0		AA	766		TDS-PHX-STL-CLE	Computer Service
			AA	196		TDS-PHX-TFK-BOS	Pine Valley mail
			AA	112		TDS-PHX-IAD-FWA	flight
			AA	118		TDS-PHX-TFK-BOS	
			AA	246		TDS-PHX-ORD-DTW-LGA	
			AA	69		IAD-MUS-AIAF-EIP-TDS-PHX-LAX	
			CA	75		IAD-SIT-AIAF-EIP-TDS-PHX-LAX	
			CA	90		TDS-PHX-DEN-TAP-BIS-MOT	
			F4	103		MIA-DEN-ABQ-TDS-PHX	
			F4	99A		TDS-TOL-SLC-BOS-T-PDX-SEA	
			RW	889		TDS-PHX-ONT-SVA	
			RW	878		TDS-PHX-SLC-GEG-SEA	
			RW	899		TDS-PHX-ONT-BUR	
			RW	858		TDS-PHX-LAS-RNO	
			RW	889		TDS-PHX-SVA	
			TU	192		* TDS-PHX-TFA-CJS (SMA-LI-HAR-FCS)	* CHOCOLATE SERVICE
			TU	239		TDS-PHX-MCT-STL	To FIT 910 AT N
			TU	106		SFO-TDS-PHX-ASO-ORD-DUB	York continues to Boston, then E
PHX-SAN	5 - 0 - 0		AZ	134		LAX-SAN-PHX-STL-CLE-BUF-LGA	
			A/A	476		SAN-TXH-DEN-MSP	
			UA	900		VVR-PDX-LAX-SAN-PHX-DEN-MSP	
			UA	216		LAX-SAN-PHX-DEN-FSD-MSP	
			UA	550		HNL-SAN=PHX	

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Total Market Service			Individual Carrier Service		
City - Pair Market	Now - Stop One-Stop Multi-Stop		Carrier	Flight Number	Flight Itinerary
	Flights	Flights			
PHX-PSP	1	1	AA	622	* PSP-PHX-DAL-PHX-ITK
			AA	686	LAX-PSP-BUH-PHX
					* AMERICAN ONE FLIGHT WAS TO BE DISCONTINUED AFTER 7/15/73. (NEW FLT: PHX-DAL-PH)
TUS-PSP	0	0			(Connecting Service Only)
TUS-SAN	1	0	AA	374	SAN-TUS
TUS-ELP	6	0	AA	645	TUL-DAL-ELP-TUS
			AA	553	DCA-ORD-ELP-TUS
			CO	73	IAH-BUS-MAF-ELP-TUS-LAX
			CO	69	IAH-BUS-MAF-ELP-TUS-PHX-LAX
			CO	61	IAH-BUS-ELP-TUS-LAX
			CO	75	IAH-SAT-MAF-ELP-TUS-PHX-LAX
TUS-MCI	1	0	TW	101	PHL-STL-MCI-TUS-SFO

City - Pair Market Direction	TOTAL MARKET SERVICE			INDIVIDUAL CARRIER SERVICE		
	FLIGHTS	ONE-STOP FLIGHTS	NON-STOP FLIGHTS	CARRIERS	FLIGHT NUMBERS	FLIGHT ITINERARY
TUS-PHX	17	0	0	AA	116	SFO-PHX-TUS-ELP-ORD-EWR
				AA	117	BOS-TFK-PHX-TUS
				AA	111	BOS-IAH-PHX-TUS
				HA	486	SFO-PHX-TUS
				CO	74	LAX-PHX-TUS-ELP-MAF-AUS-IAH
				CO	72	LAX-PHX-TUS-ELP-SAT-IAH
				CO	56	LAX-PHX-TUS-ELP-IAH
				FL	90	PHX-TUS-RBQ-DEN-RAP
				FL	105	DEN-LAX-ORD-DEN-PHX-TUS
				RW	982	SWR-PHX-TUS
				RW	984	BUR-ONT-PHX-TUS
				RW	720	SEA-GEG-BOI-SLC-PHX-TUS
				RW	759	SMF-FAT-LAS-PHX-TUS
				RW	753	RNO-LAS-PHX-TUS
SAN-PHX	10	0	0	RW	988	BUR-ONT-PHX-TUS
				TW	191	STK-PHX-TUS
				TW	435	BOS-ORD-PHX-TUS
				HA	225	BNA-MIL-PHX-SAN
				AA	133	LGA-BUF-CLF-STL-PHX-SAN
				AA	385	BOS-CLF-STL-PHX-SAN-LAX
				AA	177	TFK-PHX-SAN
				AA	159	BOS-ORD-PHX-SAN-LAX

Computer Scan
Five Daily Hours
FLIGHTS

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CITY-PAIR MARKET		TOTAL MARKET SERVICE		INDIVIDUAL CARRIER SERVICE		COMMENT
DIRECTION	CITY-PAIR MARKET	Non-stop one stop/less than one stop		CARRIER	FLIGHT ITINERARY	
		FLIGHTS	PERCENT FLIGHTS			
(CONT) SAN-PHX				WA	PHX-SAN-PHX	
				WA	MSP-DEN-PHX-SAN-LAX-SEA	
				WA	MSP-FSD-DEN-PHX-SAN-SFO-PHX	
				WA	MSP-DEN-PHX-SAN-LAX-SFO	
				WA	MSP-FSD-DEN-PHX-SAN-LAX-SFO	
PSP-PHX		1	1	AA	* JFK-PHX-DAL-PHX-RDP	* Phoenix To Tulsa Serving To Be Discon After July 15th
				RW	PHX-BLN-PSP-LAX	
PSP-TUS		1	0	AA	* LGA-ORD-TUS-PSP-LAX	* Tulsa Springs To Dropped From Tulsa After July 15th
SAN-TUS		1	0	AA	PHX-BAL-DAL-TUS-SAN	
ELP-TUS		5	0	AA	SFO-PHX-TUS-ELP-ORD-EWR	
				CO	LAX-PHX-TUS-ELP-IAH	
				CO	LAX-TUS-ELP-MAF-SAT-IAH	
				CO	LAX-PHX-TUS-ELP-MAF-AUS-IAH	
				CO	LAX-PHX-TUS-ELP-SAT-IAH	
ALB-TUS		0	1	TZ	TUS-PHX-MCI-STL	

Source: OFFICIAL AIRLINE GUIDE, JULY 1, 1973.

Includes only flights offered 5 or more days per week

MEMORANDUM

To: \ Honorable Edward M. Kennedy, Chairman
Subcommittee on Administrative Practice and Procedure
United States Senate

From: Dr. John W. Drake, Professor of Air Transportation
School of Aeronautics and Astronautics
Purdue University
West Lafayette, Indiana 47907

Subject: Comments re: A.T.A. study of Consequences of Deregulation
of the Scheduled Air Transport Industry

Date: 15 May 1975

Summary

- The ATA model misapplies costs in such a way as to make more segments appear unprofitable.
- The ATA model probably understates short and thinly travelled segment yields, thus making more appear unprofitable.
- The ATA model leaves out all aircraft less expensive to operate than a DC-9-10, thus making more segments appear unprofitable.
- The \$50 billion spent on the Interstate system has indeed succeeded in providing superior alternative service over many of the segments enumerated. This should not be viewed as a catastrophe.
- The model used is very questionable for this application, for both reasons of oversimplification and for more fundamental reasons of methodology.

Introduction

The ATA study referred to concerns the application of a model to the question of profitability of individual segments of the airline route network of the United States. There are a host of questions one may ask about any such study, many of which get involved with fine points which do not, in fact, matter too much. The important thing therefore is to try to address the important questions. These seem to me to be (more or less in order):

- Does the simulation, as run, use reasonably good cost data?
- Does the simulation, as run, use reasonably good revenue data?
- May the simulation method used be expected to give the answers it purports to give (i.e., reasonably credible answers re. probable route abandonments)?

My belief concerning these questions is, briefly: "No," "Perhaps," and "No."

Analysis

Basically the simulation steps flights into the network on a segment by segment basis and computes purported costs of flying and revenue from the services offered. The difference, profit, is used to determine whether to add a flight and where to add it, and thus what and how many routes are candidates for abandonment. Being a difference between two very nearly equal numbers the profit criterion is much more sensitive to errors in either the cost or revenue estimates than they are themselves. Thus the distinct interest in whether or not the cost or revenue

assumptions used are to be relied upon, since either overly high costs or overly low revenues will quickly turn routes from profit to loss.

Costs

If all costs of operating were proportional to the number of passengers carried or flights flown, airline route analysis would be a vastly simplified matter. However, as in many businesses, costs are very much a mixture of fixed and variable. Furthermore what is fixed in the short run may, sometimes, be variable in the long run. In addition, fixed costs are fixed on a number of levels themselves.* The ATA in its

*J.E.D. Williams in his excellent book "The Operation of Airlines" (Hutchinson Scientific & Technical, London, 1964) divides costs as follows in his Chapter 12, "The Anatomy of Operational Costs":

Operator's Overheads, A. Those costs which would be incurred whether the particular fleet under discussion existed or not.

Fleet Overheads, B. The costs necessarily incurred by having the particular fleet, whatever its size and whether used or not.

Aircraft Fixed Costs, C. The marginal cost of having one extra aircraft in the fleet whether used or not.

Station Fixed Costs, D. The cost of maintaining the basic establishment of personnel and facility at a station.

Sector Costs, E. Those marginal costs of operating one flight on a sector which are independent of how the flight is operated.

Hourly Costs, F. Those marginal costs of flying the aircraft for one hour which are independent of how the aircraft is flown. Hourly costs per flight are computed on the basis of block time, i.e., from the start of taxiing out to the end of taxiing in.

Passenger-hour Costs, G. The costs of providing a passenger with service for one hour not otherwise incurred. For some purposes it is convenient to consider passenger-hour costs as a charge on revenue.

Fuel and Oil, H. The cost of fuel and oil loaded at the refueling point. Fuel is bought by the gallon and metered by the pound, and produced thrust by the B.T.U. For many purposes (but not, for example, selection of minimum-cost cruise) fuel and oil costs may be considered a part of the hourly variable cost F.

(continued)

study treated costs in a very unrealistic manner. As explained on page 4, "marginal" costs were used to select the flight to be added but then "after each flight addition is made.... total operating costs are adjusted to include the additional system costs* [to produce fully allocated costs]." This prorating of fixed costs of all kinds over the variables of all kinds on a percentage basis will permit the model to make incremental decisions in a way which is quite removed from reality. For example, it may in effect be "paying for" 10% or 129% of a DC-9 maintenance base when as a matter of fact for many of the items which make up such a base you simply have one or you don't, thus producing a large fixed and lower variable cost. Rather than being added prorata, major portions of the fixed costs should be treated by the model simply as they are: fixed, by system, fleet, station, etc. This leads to very much lower marginal costs and a sort of "steady by jerks" behavior of the fixed costs.[†] The result is that a model so constructed would have a

Charges on Revenue. Certain costs such as the agent's commission are necessarily incurred by the act of selling a ticket. For the purposes of aircraft operational studies these can conveniently be regarded as a charge on revenue. Reference in this book is always to net revenue, that is, the residual revenue after deduction of items under this heading.

The advantage of this classification is that if values are assigned to A, B, C, D, E, F, G and H it is possible to see precisely how changes in the operation, such as fleet-size, schedule, route-structure, load factor, operating technique, etc., affect the economy of operation. The snag is the difficulty of assigning costs under these headings, but this analysis must nevertheless be undertaken if the operator is to ensure that the operating posture is at maximum profitability.

*fixed costs

[†] i.e., a big "jerk" when one goes to two DC-9 maintenance bases, opens a new station, or buys a new type of equipment.

a substantial fixed cost and immediately pour flights into the most profitable routes. However, once that were done it would have created much of its infrastructure and would find it profitable to keep adding flights on an incremental basis in a manner very different than the way the model used in the ATA study does in its phase 1.* It would add more until it came to a step in the fixed costs and then hesitate until traffic pressure built up. A good many of the "more" would, it seems to me, be on the routes the ATA suggests are threatened, albeit mostly between cities each of which already had a station (and thus many fixed costs).

If one were simulating competitive practice it would mean that, in the above example, the stations would need to be of the same carrier (although interchange flights could be used as well as other techniques). The most important thing however is that in a competitive environment everyone's fixed cost steps are not identical in time and place. One carrier may be reluctant to add a flight of a certain kind but another carrier which has just bought the right aircraft type may well be anxious to do so.

In sum, I believe the treatment of costs in the first phase of the model used (the fully allocated cost phase) greatly distorts the model's process of adding flights,[†] and does so because of the model's demand/frequency assumption,^{††} in the direction of concentrating flights in the

*i.e., as shown in Figure 2 page 4 of the ATA study and expanded upon in the Lockheed brochure CTR 2007, Lockheed Airline System Simulation, revised May 1970, charts 884-09229 through 886-09229.

[†]ibid., Lockheed chart 889-05180.

^{††}One may ask why this was done. I believe there are a number of reasons

major markets.*

Revenues

Revenues are less clear. Individual segment-by-segment coach fares were used. They were then reduced by a constant percentage to reflect recent system-wide average discount experience. Thus short haul flights and lightly travelled segments were discounted to the same degree as long haul and dense segments. I do not have data immediately at hand from which to analyze discounts including the effect of the fare pro-rate on joint fare routings by segment type; however, a few observations are obvious.

1. By Trunk Carrier, in 1969, there is a recognizable tendency toward less discounting in shorter hauls based on comparing each carrier's % Full Fare revenue from the DPFI Phase 5 Decision, Appendix B, with the coach lengths of haul, Appendix L.
2. Many of the present day (1975) discount fares do not apply on thin routes (e.g., no TGC from IND→SEA) nor on short routes (e.g., no Bicentennial below 750 miles, no demand scheduling below very long haul).

but in this case it is most probably a combination of the background of the modelers (technical more than economic) and the state of the art when the model was begun (ca. 1959). For further discussion of the problems associated with models not doing what decision makers want models to do, see my book: The Administration of Transportation Modeling Projects, D. C. Heath, Lexington, Mass., 1973.

*I do not wish to suggest that I propose the modifications I have suggested as all that is needed to perfect the model under discussion. I recognize full well, for example, that if my modifications were made one could get vastly different answers if you ran the model from zero frequencies upwards and from many frequencies downwards. It would be more realistic, however, as this is exactly what happens in real life. In truth, I favor a mathematical programming approach using origin and destination data rather than segment flow data. Such a model would break the perpetuation of the present route structure just because it is the present route structure. Such a mathematical programming approach is now just within the state of the art, I believe. See the discussion later in this memo.

Thus, given a choice, I would have to guess that the ATA underestimated the "endangered" segment actual yields. The prorated situation is more of an unknown, however, so to be certain one must have the real data.

Aircraft Types

Clearly another way in which the ATA study suggested such a large number of endangered segments was by its choice of equipment. The list on page 3 is long enough but not diverse enough:

<u>ATA</u>	<u>Possible</u>
B-747	* B-747
L-1011/DC-10	* L-1011/DC-10
DC-8-61	* DC-8-61
B-707-300B/DC-8	B-707-300B/DC-8-50
B-727-200	* B-727-200
DC-9-30/B-737	* DC-9-30/B-737
DC-9-10	DC-9-10 (?)
	* Convair 580
	* FH-227B
	Allegheny Conversion of Nord 262 (Mohawk 298)
	* DHC-7
	Short SC-30
	* Fairchild/Schweearingen Metroliner

Clearly not all need to be included--perhaps only the asterisked ones. Running time would go up slightly but I dare say some endangered segments would suddenly survive, which leads "Voilà!" to the third level carriers and their willingness to step in. To be sure, as the ATA says, Lafayette, Indiana, (where I write this)-Chicago service by Allegheny is

endangered. It's so endangered it's been gone for well over a year. But we have eight (weekday) non-stops to Chicago on fast pressurized Air Wisconsin planes. Who is suffering?

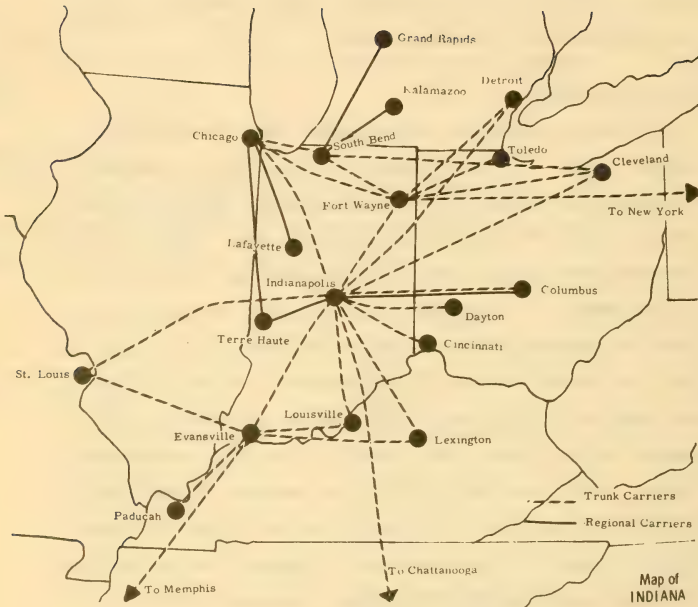
Interstate Highways

One must also not lose sight of another factor: the interstate highway system. I will use Indiana as an example since I now reside there and travel extensively. I reproduce the map from the ATA study and the same map with the interstate highways added. Having now spent something approaching \$50,000,000,000 to build a vast system of interstate highways, is it any wonder that Indianapolis - Fort Wayne service might be threatened, and so should a lot of the others? We should not cry if we sometimes succeed in transportation! This does point to the most important of all aspects of this whole deregulation questions, however, which is simply that of "What is our national transportation policy?" As of now we don't have one. We need one. Otherwise we are in the silly situation of crying over things that either won't happen or that we've spent billions trying to get to happen.* With no integrated intermodal transportation policy, we don't know when we are well off!

Model Methodology

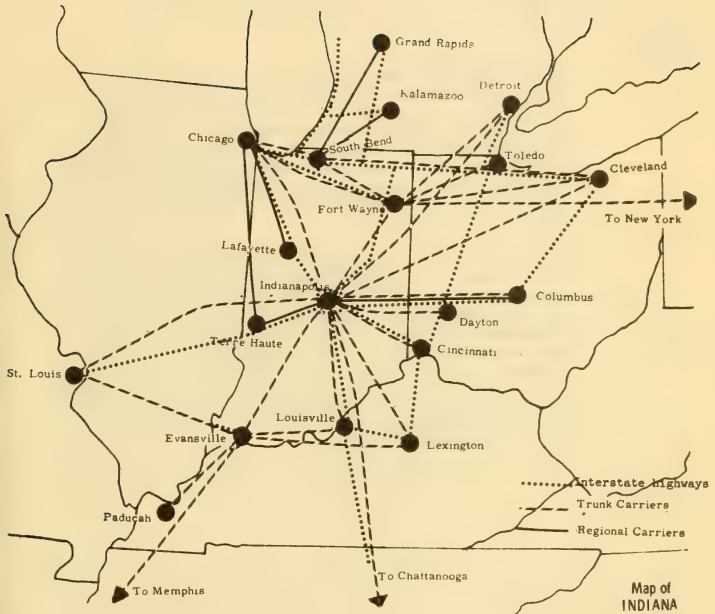
One must still address the question of whether the model used is fundamentally appropriate to the problem. That is, if it were merely improved and had everybody's nit-picking objections taken care of and computer time were no object, could it do the desired job in this

*Or in the case of the trains, happened when we didn't want them to, because of disjointed policies toward air, rail, water and highway transportation.



ATA Study Map of Indiana

JOHN W. DRAKE • TRANSPORTATION CONSULTANT



ATA Study Map of Indiana with the Interstate Highways Added

instance? I have hinted at the answer in my earlier footnote (see page 7 at the end of the costs section). Let me reiterate and expand slightly.

1. If the model would realistically simulate business behavior by incrementally adding flights (using good cost steps, slices, etc., etc., etc.), it wouldn't reproduce its results when run backwards, taking away flights from a vast superfluity, but both answers would be equally valid! They would simply highlight a major policy question: Should the government still view air transport as an infant industry needing a boost, or not?
2. If one really wants to see what segments of a route network the U. S. ought to want to have in the interest of maximizing its efficient use of resources, use of the existing segment flow data ("service segment data" from the ER 586's) is the wrong way to go. A mathematical programming approach using origin and destination data, though not without problems, is a better way. Ideally it should be a mixed-integer program but, depending upon the time horizon, that is not as essential as it first appears. Such analyses are now within our grasp and should be done.

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SANTA BARBARA • SANTA CRUZ

DEPARTMENT OF ECONOMICS

BERKELEY, CALIFORNIA 94720

June 4, 1975

Senator Edward M. Kennedy
 Chairman, Subcommittee on
 Administrative Practice and Procedure
 United States Senate
 Washington, D.C. 20510

Dear Senator Kennedy:

Please forgive my long but unavoidable delay in responding to your letter of April 29, requesting an evaluation of the April 25 letter of Dr. George James, and on the Air Transport Association report used to back up the main points in that letter. The previous letters of other economists have covered most of the important weaknesses of the James letter and the ATA report, so I shall limit myself to a few additional comments.

As previous comments on the ATA model have indicated, its primary weakness is that it assumes that in the absence of regulation, the carriers in any given market would behave as a single monopolist, at least, the service quality offered. Thus, the report argues that without regulation, flights on currently unprofitable routes would be abandoned, and flights on profitable routes would be cut back to achieve maximum profits.

This conclusion is not only based on faulty analysis (as previous comments have already pointed out), but also, the study starts off with what seems to me to be a totally mistaken assumption about how the CAB currently affects airline behavior. The study implicitly assumes that there is something which the CAB is doing, through exercise of its legal powers, to prevent flight cutbacks on main routes, so as to prevent load factors from rising to a profit-maximizing level (mentioned to be 81 per cent). And yet there is nothing which the CAB has done to prevent "profit-maximizing cutbacks" in flights to such a load factor. It does not have to, because the airlines compete among themselves in service quality, driving load factors down until profits reach a normal level. Why this would change in the absence of CAB regulation is never stated, either by Dr. James or by the report (antitrust laws would of course prevent collusion in restraint of trade on the part of the airlines in the absence of regulation, just as they do now). It would thus appear that the ATA study is vesting the CAB with powers which it does not have, and which it clearly does not need. As a result, the study is irrelevant to the question at hand.

The second point which I want to make regards the empirical validity of the results of the ATA study. It asserts that if money-losing routes were abandoned,

- 2 -

372 routes would lose trunk service. Professor Peltzman, in his excellent comment, points out that of these, there are seven Texas and California routes which currently receive service from non-subsidized intrastate carriers at below-CAB fares.

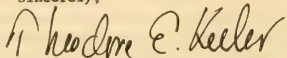
I count even more such routes than Professor Peltzman: in addition to the ones he mentions are Fresno-Los Angeles, Fresno-San Francisco, Stockton-San Francisco, and Los Angeles-Palm Springs. Thus, all told, eleven of the routes which the ATA report predicts would lose service in the absence of regulation are in fact being served by non-subsidized carriers at below-CAB fares.

Third, as any reference to the Official Airline Guide will indicate, commuter carriers have served profitably many routes of too low a density for even the subsidized local service carriers. Nearly all routes currently served by the trunks are of higher density than that. Thus, any town which lost trunk air service would be almost certain of being served by a non-subsidized commuter carrier, and many cities would stand a good chance of being served by a larger carrier such as PSA or Southwest Airlines.

I am most inclined, however, not to believe that these routes are unprofitable in the first place. As Dr. Eads has commented in his letter of May 1, the trunk carriers are free to abandon service on most of these "unprofitable" routes, and the fact that they have not done so indicates either that the routes are profitable, or that the managements of the airlines represented by the ATA are incompetent, in failing to maximize profits given the existing regulatory structure. I believe that the routes are profitable. To the extent, then, that the CAB is not currently requiring the airlines to provide as much service as they do on these "unprofitable" routes, it is difficult to see how elimination of CAB regulation would have any impact whatsoever on service provided. Again, the ATA report is basically irrelevant as regards the effects of CAB regulations.

To conclude, I think that the ATA study is an interesting (if highly inaccurate) exercise to determine what would happen if, by regulatory fiat, one carrier were granted a complete monopoly on every route in the country. But it has little if anything at all to do with the potential effects of deregulation of the trunk airline industry in the United States.

Sincerely,



Theodore E. Keeler
Assistant Professor of Economics

TEK:jst

UNIVERSITY OF CHICAGO

GRADUATE SCHOOL OF BUSINESS

5836 GREENWOOD AVENUE • CHICAGO, ILLINOIS 60637

May 5, 1975

Senator Edward M. Kennedy
 Chairman
 U. S. Senate Subcommittee on Administrative
 Practice and Procedure
 Senate Office Building
 Washington, D.C. 20510

Dear Senator Kennedy:

I am pleased to reply to your request of April 29 for a review of the Air Transport Association's study on the possible consequences of deregulation of the airline industry.

In my opinion, the weaknesses of this study are so glaring that the study simply cannot support the case the ATA wants to make. In fact, if it does anything, it strengthens the case for deregulation.

The heart of the study is a list of 372 nonstop routes which "are prime candidates for abandonment under deregulation." One indicator of the weakness of the study is its inclusion among these 372 routes of seven Texas and California routes already being served by non-CAB-regulated carriers at below-regulated rates. These are:

San Francisco-Sacramento
 San Francisco-San Diego
 Los Angeles-San Diego

Dallas-Houston
 Harlingen-Houston
 San Antonio-Houston
 San Antonio-Dallas.

Clearly, if unregulated service is already being supplied to these markets it is absurd to claim that they will be left without service under deregulation. Since the entry of unregulated carriers has, in virtually all these markets, led to improved service, a legitimate question may be raised against the ATA's claim that extending deregulation to the remaining 365 markets will lead to the cessation of (nonstop) service to them. Indeed, if one checks this list, numerous instances will be found where nonstop service is in fact being provided by lightly regulated commuter air carriers. I comment on this subsequently.

I believe that the major weakness of the study, and perhaps the primary source of anomalies like those I have just cited, lies in its methodology. This methodology is not described clearly, but it appears to rely heavily

on estimates of the profit or loss engendered by the addition of nonstop flights to specified city pairs. The defect of this methodology is implicitly recognized in the April 25, 1975 covering letter to you from George W. James, ATA Senior Vice-President--Economics and Finance, in which he states that "it is recognized that some [of the listed "unprofitable routes"] might be held [under deregulation] for such reasons as feeding heavier traveled routes or aircraft positioning." This appears to recognize that a nonstop route can be profitable even if the traffic generated on that route alone could not support nonstop service. For example, there may be 30 passengers between City 1 and City 3, and another 30 between intermediate City 2 and City 3. These may separately be insufficient to warrant 1-3 and 2-3 nonstop service, but may make a 1-3 flight with a stop at 2 profitable. Consequently, the total market involved can support what will show up as two nonstop flights (1-2 and 2-3). Thus, when a particular segment of a longer route cannot support nonstop service by itself, it is invalid to infer that this segment will be abandoned.

The vast majority of the "prime candidates for abandonment under deregulation" appear to have precisely this characteristic; they are primarily segments of longer routes. The extent to which this is the case may be indicated by an examination I made of every tenth city pair on the list of 372 in Exhibit B of the ATA study. Of the 37 pairs I examined, 7 in fact had no nonstop service listed in the April 15, 1975 edition of the Official Airline Guide (numbers 140, 210, 280, 310, 320, 350, 360 on the ATA list). Of the remaining 30, there was no case in which more than half of the nonstop flights were operated exclusively between the two cities. In one case, (number 90), half the nonstop flights did originate in one city and terminate in the other. In each of the remaining 29, the majority, and in most cases virtually all, of the nonstop flights were segments of longer routes. It may also be of some interest that 7 of the 37 city pairs, including one of those which in fact had no nonstop service by regulated carriers, had nonstop service provided by commuter airlines (numbers 30, 120, 140, 150, 170, 200, 220).

This examination leads me to conclude that the ATA study simply cannot be relied upon to predict the likely configuration of airline service under deregulation. Its inclusion of so many markets already being served by non-CAB-regulated carriers may in fact indicate the potential that reduced regulation has for improving service in other markets. But, in any case, the spectre of mass abandonment of nonstop service under deregulation is produced by a methodology so flawed that it merits the most extreme skepticism.

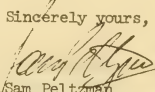
There are other aspects of the study that also merit skepticism. For example, the implicit identification of service quality with nonstop service is questionable. There is clearly a tradeoff between limited nonstop service and more extensive service with some stops. The conclusion that lower fares

-3-

will always reduce flight frequency on profitable routes is also questionable, because it is based on the existing regulated airline cost-structure and regulatory restriction of entry. The plain fact is that where entry by unregulated carriers has occurred, as in Texas and California, lower fares have widened the market sufficiently to produce more rather than less frequent flights.

I hope that my comments are of some assistance to you.

Sincerely yours,



Sam Peltzman
Professor of Business
Economics

SP:gb

UNIVERSITY OF VIRGINIA
 JAMES WILSON DEPARTMENT OF ECONOMICS
 CHARLOTTESVILLE
 22901

ROUSS HALL.

May 12, 1975

The Honorable Edward M. Kennedy
 Chairman, Subcommittee on Administrative
 Practice and Procedure of the
 Committee on the Judiciary
 United States Senate
 Washington, D.C. 20510

Dear Senator Kennedy:

I write in reply to your request of April 29, 1975 for a review of the Air Transport Association of America study (forwarded to you April 25 by Dr. George James) which predicted substantial reductions in air service as a consequence of deregulation. While perhaps of interest for other purposes this study by ATA has absolutely no bearing on the question of deregulation. Most importantly it ignores the possibility under deregulation of service from new carriers, a possibility which actually should be one of the major consequences of deregulation. It also ignores the presence of some already existing service. As a consequence its implications about cessation of service are totally unfounded, for they might be relevant only in the most unlikely event that deregulation means a single giant monopoly free from all regulation, while some existing carriers and all potential ones are legally denied the right to provide airline service. Even given this inadequate scope, the study's categorization of routes as "profitable" or "unprofitable" is unreliable and cannot sustain the implications under its assumptions, namely that certain routes will be denied service under deregulation.

The conclusions stated in Dr. James' letter cannot be supported by the ATA study. No claim that "scheduled air service might be eliminated" is possible because no evidence is presented showing that a new entrant would not be motivated to offer service. Indeed, the ATA analysis implies enormous profit for the Airline System, which under deregulation should invite abundant new entry and thereby undercut any claim that service would be eliminated. Nor is there any basis for assertions at page 2 that subsidized routes might not survive or that service would be unstable. Claims that lower rates would make many more routes unprofitable and would increase subsidy needs also cannot be supported by the ATA study.

The outstanding weakness of the ATA study is that it gives no attention to the functioning of market processes, which surely will accompany deregulation. In particular, despite the enormous profit rates implied by the ATA simulation, the reader will look in vain for any consideration of the possibility of entry into the airline industry by a new firm. The analysis simulates the action of a gigantic Airline System controlling completely the provision of airline service without giving any consideration to the possibility that a firm outside this organization would see how profitable the airline industry is and decide to enter it. Although it thereby casts the airline industry virtually as a monopoly and examines how much service it would offer, the study never pursues the equally important monopolist's decision about fares, but rather it merely maintains 1973 fares. So even as an analysis of monopolistic organization of the airline industry the study is incomplete.

Any study of effects on the airline industry of deregulation must focus on the prospects for entry by new firms. For it is through entry and exit that competitive markets achieve their efficiencies. A well known and most crucial feature of current airline regulation is its restriction on new entrants seeking to provide various categories of airline service. Indeed, the exit of firms from the industry, or the termination of service between city pairs which is emphasized in the ATA study, is a much less important issue than entry, particularly when exit often is already allowed much more readily than entry under current regulatory practices. To examine the consequences of deregulation it is essential that entry and exit be probed.

The ATA study ignores the possibility of new entry and indeed it does not even consider 1,267 non-subsidized routes of regional air carriers which already are in existence. As a consequence its implications simply are of no interest for the question at issue, namely, what will happen as a result of deregulation? Having implicitly ruled out by assumption a major source of airline service to be expected under deregulation, that by new carriers, any claim by ATA that service will not exist in any market is obviously unreliable. One need not seek mistakes in calculations or faulty execution of ATA's method; the method of analysis is inadequate and inappropriate in its assumptions and in its design, and therefore it is incapable of predicting loss of service under deregulation. Ignoring new entry in this way is also certain to lead to misleading results because

profit is so high that entry will be motivated.

One flaw does seem obvious in the study, however, even apart from its excessively limited scope in ignoring new entry, although not enough information is provided in the study to allow definitive analysis of the flaw's effects. The division of routes by ATA into "profitable" and "unprofitable" categories apparently does not consider explicitly that passengers carried on some routes labeled "unprofitable" by ATA actually travel farther and cause profit to be earned on routes labeled "profitable" by ATA. The importance of this possibility is that it means part of the profit assigned by ATA to "profitable" routes actually should have been assigned to routes classified by ATA as "unprofitable." Thus the profitability categorization by ATA is potentially spurious, and it certainly cannot sustain any claim that routes categorized as "unprofitable" under ATA's method would not continue to be served by the source of service ATA considered (not to mention alternative sources, which were arbitrarily and inappropriately ignored in the ATA study).

It is possible that some of the economies claimed in the ATA study through higher load factors actually can be achieved under deregulation, because current regulatory practices can lead to lower than optimal load factors, which raise costs. We presently rely on control over price plus competition in non-price areas among existing air carriers who are protected from new entry, as our means of economic regulation of airlines. If price is set too high under this arrangement the competing carriers will have an incentive to schedule many flights because flights are so profitable (see George W. Douglas and James C. Miller III, Economic Regulation of Domestic Air Transportation: Theory and Policy (Washington, D.C.: The Brookings Institution, 1974) for an excellent analysis of this consequence of current regulation), with the result that load factors will fall. The competition of existing airlines thus effectively raises costs, at least until only normal profits are earned and further non-price competition is not motivated. If new carriers were allowed to enter the market, price control would not be needed and so such a result could not persist, because the new entrants would force price down. The ultimate equilibrium would be tailored more to consumers' preferences between flight frequency (and other non-safety aspects of service quality) and price. Such important consequences of deregulation were not broached in the ATA study, however.

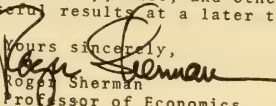
The ATA study also implies that profitability will increase enormously under deregulation. Profit from airline services as

considered by ATA will more than double while the amount of service and, in turn, the needed level of investment will be only a fraction of what it is now. The implied rate-of-return on airline investment is consequently very high. We have abundant evidence that without laws preventing them, high rates of return always bring expansion and new entry, so the arbitrary exclusion of such consequences by ATA obviously is crucial to the results obtained. It is inconceivable that their high rates of return would persist without eliciting abundant entry by new air carriers, a consequence they simply fail to consider. Thus the ATA study can be criticized not merely because an oversight in its model might give misleading results; it actually is wrong in claiming reductions in service accompanied by high profit, for such results together would be inconsistent with the functioning of competitive markets.

It should be mentioned here again that the ATA study generally maintains 1973 fares. Were the Airline System protected as fully from new entry as the ATA study assumes, the System almost certainly would move to higher fares and, depending on consumer responses which are not treated in the study, it is possible that routes would then be even more profitable and Service eliminations claimed by ATA would not be motivated. Thus, in addition to ignoring new entry, by considering no mechanism for changing price from 1973 levels (except for arbitrary percentage reductions due to causes that are never explained) the ATA study ignores the role of market mechanisms for determining price as well as service output. Although it may be of limited use in the present regulatory environment, since the ATA study does not allow for the functioning of market processes, it is wholly inadequate to deal with the consequences of deregulation.

In concluding so firmly that the findings of the present ATA study are without merit I do not wish to criticize the ATA organization. It was not unreasonable of the ATA to turn for evaluating consequences to the simulation model which it already had available. And the ATA could also have genuinely feared service elimination in part because, like the model it employed, it had not considered fully enough the prospect of new entry that will accompany deregulation. Further elaboration of the ATA simulation to take into account entry, exit, and other market processes may still yield useful results at a later time.

Yours sincerely,


Roger Sherman
Professor of Economics

PURDUE UNIVERSITY
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 OF
 INDUSTRIAL ADMINISTRATION
 KRANNERT BUILDING
 WEST LAFAYETTE, INDIANA 47907

May 9, 1975

Senator Edward M. Kennedy, Chairman
 Subcommittee on Administrative Practice
 and Procedure
 United States Senate
 Washington, D. C. 20510

Dear Senator Kennedy:

This letter is in response to your correspondence of May 1, 1975, which asked me to comment upon the Air Transport Association Study, "Consequences of Deregulation of Scheduled Air Transport Industry." My basic conclusion is that the ATA simulation is an inappropriate model to use in order to investigate the resulting changes in a deregulated market for the trunk carriers. Its results of elimination or vast curtailment of service must then be considered highly suspect. In this regard, my analysis echoes those of the Greenspan-Miller and Rees-Eads letters, which you were so kind to enclose.

The crucial question the committee faces regarding the issues of deregulation is the following: "What system of controls (if any) should be imposed in order to make the public best off?" From an economic standpoint, I will argue that a competitive market is best for a number of reasons.

I feel that a closer examination should be made using the examples of intrastate commerce (not under CAB price regulations), in order to investigate the possible consequences of deregulation. Two of my colleagues, Ron Adelsman and Mike Pustay provided me with useful insights into the problem. My opinions expressed here are my own and do not reflect the views of Purdue University.

I hope this material will be of assistance to you; thank you for your consideration.

Sincerely,



Andrew Winston
 Professor of Economics, Management
 and Computer Science

AW/lg

Encl.

COMMENTS ON AIR TRANSPORT ASSOCIATION'S ANALYSIS
OF THE CONSEQUENCES OF AIRLINE DEREGULATION

In the ATA study, Dr. James states that there are basically three approaches one can take in analyzing the consequences of a deregulated market: simulation, macroeconomic, or study of a deregulated environment. The macroeconomic model is dismissed as "intellectually elegant, has the disadvantage that it cannot be validated." Two examples of the last approach are given: the pre-1938 era and the California (intrastate) market. The author discards the first because the airline market today is vastly different (I agree), and he casually dismisses the second by terming it "chaotic." Thus, we are left with no choice but to take the simulation approach.

There is nothing inherently wrong with performing a simulation per se, and certainly the Lockheed simulator is well respected and widely used, as was pointed out by Dr. Miller in his letter (page 2). But, if the model is misused by subjecting it to a task for which it was not designed and is ill prepared to handle, we face possibly disastrous consequences for trusting its output, as was mentioned by Dr. James himself. As has been described by the other letters, the simulation is indeed faulty in a number of areas. Furthermore, the ATA seems somehow to have misconstrued the present legislation before the committee. As a result, the conclusion that of the 994 trunk-carrier routes analyzed, "372 would be candidates for elimination under deregulation, while nearly all of the remaining 622 could experience a sharp curtailment of service" (page 1) has no legitimate basis for support.

In order to bolster the claim that the output of the model is in error, one can take two approaches: discredit the model itself by pointing out its inadequacies and/or show that the output provides irrational answers to the input questions. At this juncture, I will reiterate the main problems in using the Lockheed simulator to answer the question of "What would happen to flight service in a deregulated environment?"

- 2 -

Faults of the ATA Simulation Approach

1. The model does not simulate competition; it assumes either a monopolistic airline or a firm with a constant market share. Since the proposed legislation of deregulating prices, if passed, would have the primary impact of stimulating competition, a model that ignores this basic issue is inadequate at best.
2. The city-pair method of analysis is a heuristic approach to the problem that has two attendant faults. Since a full-costing approach has been taken, some common fixed costs, such as depreciation, must be artificially allocated. This procedure is not an incremental analysis as was requested by the committee. Furthermore, the concept of one leg of a multi-stop trip being a loss leader for the entire tour has been suppressed.

A ————— B ————— C Profit_I
 Not Very
 Profitable Profitable

A ————— C Profit_{II}
 Small Profits

B ————— C
 Small Profits

Thus, although Profit_I could well exceed Profit_{II}, since the leg AB is a loss leader, flight service would erroneously be cut from city A to city B. This can result when most of the passengers from A wish to travel to C.

3. Although the ATA study does investigate the effects due to the price elasticity of demand (cuts in fares of 10% and 20%), it completely ignores the effects due to the service elasticity of demand. Suppose, for the sake of argument, that service between cities A and B were

- 3 -

curtailed. Then, those displaced passengers would have three choices: cancel their trip, travel by another mode of transportation, or travel on one of the remaining flights. The proportion that exercised the last option would increase load factors and profits of the airlines retaining service. This service elasticity has not been taken into account by the ATA study. It would manifest itself most strongly between city-pairs at longer distances and with few current flights. In the extreme case, where there was only one flight, that airline would control the market and would act as a monopolist. If his return on investment were inordinately high, competition would reenter the market, thus reducing economic profit.

The other line of attack against the conclusions of the ATA study is to investigate the reasonableness of its conclusion. Again, most of these points have also been mentioned previously.

Issue

1. The output of the ATA study shows that given 1973 costs and revenues, the trunk airlines would eliminate or curtail service if they could do so. As a matter of fact, those airlines do have the capability of vastly curtailing their service under present CAB regulations, but for "some reason" have chosen not to do so. The certificate of service only imposes lower bounds (usually one or two daily flights) into and out of a city -- note: not between city-pairs. Thus, the trunks can presently cut their service levels, a fact that casts doubt upon the validity of the ATA model. Since airline managements are presumably profit maximizers, the fact that service has been maintained is an indication that they feel that there is a realization of incremental profit, contrary to the simulation results.
2. As was indicated by the other two letters operating at so-called optimality would yield a \$2 billion profit with a ROI over 70%, a patently ridiculous result which can occur by misapplying the model which ignores competition to its extremes.
3. The proposed legislation at present does not deal with elimination of subsidies to the local airlines, a complex issue in its own right.

- 4 -

Yet, the ATA study nonetheless lumps these 1,198 local service routes into their results, claiming (with no support) that these too would be candidates for elimination. Their inclusion in the graphs (as pointed out by George Eads) appears to be a smoke screen aimed at buttressing their argument.

Having hopefully laid to rest the specter of mass cancellation of flights (since this tactic is presently available and has not been exercised), I will now turn to what I feel is the relevant issue before the committee: "What are the costs and benefits associated with the deregulation of prices for the trunk airlines?" From an economic perspective, the following arguments can be advanced:

1. Currently all price variations are subject to CAB approval. The delay factor in seeking and getting approval for fare changes inhibits rapid adaptation to changing demand patterns in the market. In a "free" market no longer would this flexibility be retarded.
2. Fixing prices reduces competition and protects inefficiency. Basically each airline firm faces three kinds of competition: substitution effect -- traveling via another mode of transportation, price effect -- traveling on another airline that flies more cheaply, and differentiation effect -- traveling on another airline because it is more preferred for reasons other than price. When prices are set, the first two components of competition are also fixed. Thus, intra-industry competition has been substantially reduced. If the set price is too low, firms will not make a profit and will eliminate service (get out of the market), which they can do, in general. If the set price is "on the mark" no harm will have been done, But, if the price is too high, the consumer is in effect subsidizing the trunks with the implicit sanction of the government. Carriers which normally could not derive a profit can continue to exist on this subsidy. Furthermore, by their very existence they raise the cost of entry to the market. Thus, other firms, presently outside of the market, might be able to fly routes more economically, but current market penetration by inefficient carriers prevents their entrance into the market place.

- 5 -

3. Due to reduced price competition, the airline industry may tend to overallocate expenditures in several areas as advertising and other non-price promotional categories.
4. There is no real justification for setting prices. The airline industry is not monopolistic, nor is it a public utility. Certainly, minimum safety standards must be maintained; but allowing price competition has no bearing on this issue.

I have argued from an economic perspective why deregulation should be undertaken. The gnawing question of what would then happen still remains. Would prices remain fixed or go down? Would service decrease or increase? No one has a crystal ball. The ATA looked at the problem only from the service angle; I believe their examination was faulty. According to its Phase 9 opinion in the Domestic Passenger Fare Investigation, the CAB concludes that price setting results in an elimination of excess profits via a supersaturation of flights in the market (thus diminishing load factors to the breakeven level). If the trunk market were deregulated, the following fare-service situations could occur for a given city-pair:

1. No change in price because the regulated price accurately reflected the free market clearing value. In that case the trunks would have no incentive to change their service (everything else remaining the same).
2. Price of fares decrease because the public "subsidy" has been eliminated. Indeed, service most likely would be curtailed somewhat, the amount depending on both the price and the service elasticities of demand. The airlines would become more competitive and efficient; their scheduling times would cater more to the variations of customer demand. The profit picture of the trunks would not significantly change; in neither the pre- nor the post-deregulation periods would they be making excess profits. In fact, if anyone would be adversely affected, it would be the equipment manufacturers. The public would be better off because their fares would be reduced, and the airlines would be more rapidly responsive to their changing demand patterns. The amount of the drop in service, I feel, would not be significant. In any event,

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the wholesale cancellation of scheduled flights would not occur for reasons mentioned previously.

Since the simulation model has not provided definitive answers to the questions posed by the committee, the next task is to seek the appropriate avenue of investigation. There are basically the three approaches mentioned by Dr. James in his letter:

1. Build a macroeconomic model. To construct such a model from scratch in which one could place faith in its output would be a most difficult task.
2. Build a simulation model that appropriately reflects the problem at hand. To incorporate competition, service elasticity of demand, and correct the misallocation of costs via the city-pair method would be a formidable job.
3. Study the effects of non-regulation in price in some of the larger states -- say California and Texas. The market in these states could then serve as a microcosm for a nationwide projection. In particular, I feel that a more thorough analysis of fare and service rate changes should be made with regard to the entrance into the market of Pacific Southwest Airlines (PSA) and Southwest Airlines (WN).

PREPARED STATEMENT OF GEORGE W. DOUGLAS

I am grateful for the opportunity to come before you today to comment on the regulation and performance of our airline industry. In the current inflationary environment it is particularly appropriate that your committee undertake to examine the operations and policies of the Civil Aeronautics Board. For while in the early years of the industry the *modus operandi* and protective policies of the Board may have served a useful role, they are in large measure now outmoded and now serve primarily to significantly increase the costs, energy usage, and prices of air transportation. Certainly in an era of inflation, energy shortage, and general financial stringency we can ill afford to perpetuate these costly and wasteful practices.

I should like to note at the outset that I do not attribute this state of affairs to venality of the regulators: they have not structured or regulated the industry so as to bestow excessive profits on the air carriers. Rather, the effect of the traditional regulatory practices and policies of the CAB has been substantial increases in the costs of the carriers and fares paid by the public for air travel. While the regulatory policies which increase costs and prices are numerous, by far the dominant aspect of waste is associated with the excessive level of empty seats carried in the system. While the nature of the market requires that some proportion of the seats on average be unfilled, the level which prevails is excessive. I have calculated that from this source alone, the costs and fares of passengers in 1969 were in the range of \$366 million to \$538 million in excess of the fares they would have paid in the absence of this waste. While I have not access to current data which would enable me to completely reestimate these results for 1974, by extrapolation they would be on the order of \$850 million. One can gain a similar "real world" perspective of these costs by comparing the fares which prevail in the intrastate markets of California and Texas and those of similar interstate markets on the east coast. I have described these fares in table 1, and as you can see those in the CAB regulated interstate markets are from 29 percent to 109 percent higher. I have also calculated in an earlier study the fares which could prevail in other interstate markets, taking into account all those factors which would affect the level of efficient costs, such as distance, market density, aircraft type, service quality and convenience. These "optimal" fares and the actual coach fares of 1972 are reported for several markets in table 2. While some minor portion of the observed differences can be attributed to other sources (i.e., weather and traffic delays, terminal costs and landing fees), the major reason why the California and Texas carriers can operate profitably at such a considerably lower fare is their significantly higher load factor (i.e., proportion of the total seats filled). Since most of the costs in air transport are simply those of flying the aircraft from terminal to terminal, clearly the average cost per passenger is reduced by increasing the number of passengers per flight. There is absolutely no reason why the invisible state boundaries over which the aircraft pass on these and other interstate routes should change the nature of the airline markets so that these passengers should continue to pay these excessive fares.

TABLE 1.—COMPARISON OF FARES IN SELECTED INTRASTATE AND INTERSTATE MARKETS (DECEMBER 1974)

City-pair market	Distance	Coach fare	Fare (cents per mile)
Boston-Washington.....	413	\$45.00	10.90
San Diego-San Francisco ¹	449	29.00	6.46
Chicago-Minneapolis.....	344	42.00	12.21
Los Angeles-San Francisco ¹	355	20.75	5.84
New York-Washington.....	228	² 29.00	³ 12.72
Dallas-San Antonio ¹	253	⁴ 25.00	⁵ 9.88
Boston-New York.....	186	26.00	13.98
Washington-Philadelphia.....	133	24.00	18.05
Los Angeles-San Diego ¹	101	10.75	10.64

¹ Intrastate markets not under CAB regulation.² \$25 off peak or night coach fare.³ \$10.96 off peak or night coach fare.⁴ \$15 off peak or night coach fare.⁵ \$5.93 off peak or night coach fare.

TABLE 2.—ESTIMATES OF OPTIMAL AIR COACH FARES AND ACTUAL FARES, SELECTED MARKETS

[In 1971]

City-pair market	Distance	Optimal fare	Coach fare	Adjusted yield ¹	Ratio of adjusted yield to optimal fare
Baltimore-New York.....	180	\$16.82	\$24.00	\$20.85	1.24
Huntsville-Memphis.....	184	20.63	23.00	19.97	.97
Chicago-St. Louis.....	256	18.67	28.00	24.23	1.30
Chicago-Philadelphia.....	675	32.29	55.00	46.63	1.44
New York-Miami.....	1,092	44.65	83.00	69.95	1.57
Denver-New York.....	1,627	64.99	113.00	93.05	1.43
Los Angeles-New York.....	2,453	86.88	163.00	134.21	1.54
San Francisco-Washington.....	2,434	92.10	155.00	127.63	1.39

¹ Adjusted for incidence of discount fares (see CAB docket 21866-9, exhibit BC-6006).

Source: George W. Douglas and James C. Miller, III, "Economic Regulation and Domestic Air Transport," The Brookings Institution, Washington, 1974.

The ostrich-like attitude of the CAB in ignoring the lessons of the California experience and in not seeking the manifest benefits which could be obtained for the travelling public generally can only be regarded as scandalous. This attitude of the Board was not based on ignorance; as early as August 1965, a CAB staff report carefully pointed out the fares, costs and profitability in the California intrastate markets. (See S.L.R. Brown and Associates, "Traffic, Fares and Competition/ Los Angeles-San Francisco Air Travel Corridor." Staff Research report No. 4, Research and Statistics Division, Bureau of Accounts and Statistics, August 1965).

To understand how these cost and fare differentials arise between the interstate routes under CAB regulation, and the intrastate routes, which are not, one must look to the nature of the airline markets under CAB regulation. The principal aspects of CAB regulation which have brought us the high cost-high fare markets are those affecting price competition and entry. Effective price competition (where it in fact exists) in the unregulated industries serves an important role in both keeping prices in line with the lowest possible costs of production of goods of a given quality, and in forcing producers to produce efficiently. On examination of the history of CAB policy in this area, one can only conclude that its principal thrust has been to discourage or suppress price competition among the carriers. Carriers are discouraged from competing with price because fare changes must be filed with the Board, and are subject to challenge by their rivals. Having observed a pattern of disapprovals, they understandably seek other avenues of rivalry.

Complementing the discouragement of price competition is the Board's consistent sheltering of the industry from competition by new firms. Upon the establishment of the CAB in 1938, the existing carriers were given certificates of public convenience and necessity accorded them by their "grandfather" rights. While the CAB has allowed the entry of a new class of "local service" carriers, it has not allowed the entry of a single new trunk carrier to compete in the principal markets since 1938. CAB entry protection has been sufficient to enable the grandfather carriers to retain about nine tenths of total domestic air service, despite a 250-fold increase in total traffic since 1938. Since in unregulated industry the absence of effective price competition and excessive prices brings about new entrants, one can see the importance of the foreclosure of entry in discouraging effective competition. While the Board has granted the entry of existing firms into formerly monopoly markets (i.e., between two cities) so that monopoly itself is not a major problem, the fact that each firm faces the same rival in many markets reduces the incidence of competition.

It should be pointed out, as well, that a monopoly is not required for the efficient operation of air transportation. Unlike the generation and distribution of electric power, for example, econometric studies of the airline industry's costs are virtually unanimous in showing the lack of scale economies. That is, in the former case, since electric power can be produced and distributed in a city at less cost by one large firm than four smaller firms, it is in the public interest to establish and regulate a monopoly. This is not the case in the airline industry.

While the airlines do not compete with prices, they do compete in other ways, such as advertising and the provision of passenger services and amenities. This form of competition is beneficial to the traveller, and can be most noticed in its absence in those markets with only one carrier or whether there is no effective

competition for some other reason. But of far greater consequence in attracting passengers is the frequency of flights. The carriers have discovered that the surest way to increase their share of the market is to increase their flight frequencies.

Thus, even though the fares in most CAB-regulated markets are too high, this does not mean that the carriers earn excessive profit. Rather, the result of the nonprice competition, particularly in scheduling, is to increase the average cost per passenger carried up to the level of the price. In economic terms, we would describe this market as one in which the costs are determined by the price, rather than the reverse, which is the usual case. While along with the higher price, the travelling public does benefit from the convenience of more frequent departures (and a reduction of the chance that a seat is not available on the preferred flight), the additional costs are well out of proportion to any possible value that could be attributed to this convenience. In short, the reason why the costs in the regulated industry are high and the number of wasted seats is large and the amount of wasted fuel is high, is simply that the CAB-regulated prices have been too high. They are particularly so in the long distance routes and in the densely, heavily travelled routes.

By contrast, the regulatory restraints imposed by the state commissions of Texas and California have not had the same effect. The intrastate carriers have found that they can effectively compete with a fair profit by offering services at a considerably lower price, doing so because they have found ways to reduce some operating costs, but more importantly, by adjusting schedules so that they fly fewer empty seats. With commensurately lower fares in interstate routes, the CAB-regulated carriers would be forced to do the same.

Since the relatively high-fare high-cost equilibrium which obtains in the interstate markets have not provided the economical services the public deserves, nor provided the carriers an exceptional profit, why does such a condition exist?

My own interpretation of the regulatory history is that the CAB has failed to understand adequately the basic economic forces in the industry and the changes which have occurred which should have altered its fundamental policies.

The legislative "Declaration of Policy" in the Federal aviation acts by which the CAB operates admonishes the CAB to "promote" the industry as well as regulate it. In its formative years as an "infant" industry it was the belief of Congress that its development was in the national interest, and the industry was for many years encouraged in its growth by direct subsidy. In addition to direct subsidy the CAB attempted to further promote and expand the industry by internal cross subsidy. That is, the carriers would be required to fly a number of routes that could not cover costs. To compensate the carriers for these losses the carriers were allowed to earn excess profits in the viable markets. To shelter these profits required the competitive restraints described above: barriers to new competition and discouragement of price competition. While these arrangements for cross subsidy even in the industry's formative years can be criticized on economic grounds, they nonetheless had some logic given the stated goals of extending air transport services as rapidly and extensively as possible.

The industry has grown and prospered, and is now the dominant commercial mode of intercity travel. The trunklines grew out of their needs for direct subsidy in the fifties, and the role of expanding services in small markets was assumed by the local service carriers. Just as the trunk carriers have outgrown their need for direct subsidy, they have also outgrown the need for internal cross-subsidy. Reflecting this in some extent is the Board's action in the last 10 years or so of increasing the number of carriers in each viable market. However, the traditions of sheltering and protection from competition developed in the industry's early years have persisted, although the need for them has passed. In the milieu of nonprice competition, the fare levels which would have once generated the excess profits in the "lucrative" markets, are dissipated in higher costs to the benefit of no one.

Let I be misinterpreted as suggesting that the CAB expand its regulation to include the restraint of scheduling competition, let me declare directly that such a move is unnecessary and undesirable. Were the CAB to take a policy which would encourage more effective price competition, the price level would fall and with it the level of excess capacity offered. Currently pending before the Board is an important case in this regard, in which the Board must consider the desirability of mutual agreements by the carriers to restrain capacity. This would in effect, perfect the cartel, and if not coupled with fare reductions (which are not proposed) would generate excessive profits in those markets. Travellers in those markets would be paying for a level of service which would be denied them by anticompetitive agreement.

The tradition of attempted cross-subsidy and the Board's apparent aversion of efficient low-cost air travel is nowhere more apparent than in the international markets. The CAB, while not unilaterally regulating these markets, has a contributing role which has seldom advanced the consumers' interest. In this case, the CAB sets rules which shelter the international cartel (The International Air Transport Association) from effective price competition. The plainly excessive IATA fares are sheltered by CAB policies which restrain air charters with affinity rules, and now with minimum fare floors. Moreover, the occasional proposals for entry of a new carrier promising efficient, low-cost service are rejected even though there is no credible evidence that the service would be predatory (i.e., below cost).

The tradition of cross subsidy is so engrained with the regulator and the incumbent carriers (one can predict its stout defense by the Air Transport Association), that even a statement of policy contrary to the same by the Board in the Domestic Passenger Fare Investigation has had imperceptible results in actual policy. Let me state some frequent criticisms by economists of the practice:

- 1) If the policy is effective (generating profits in some markets which subsidize losses in others), there is a net loss of benefits; the additional benefits received by those consuming the subsidized good or service are less than the additional costs borne by those in the market providing the subsidy;

- 2) There is no presumption that the implicit transfer of benefits is equitable. Particularly it should not be assumed that the traveller in the "large" market (e.g. the grandmother flying from New York to Los Angeles) has a higher income than the traveller in the "small" market (e.g. the businessman flying from Cedar Rapids to Chicago).

- 3) The cross-subsidy mechanism is seldom effective. As in the airline industry, to provide one dollar extra profit in one market may require that the consumers pay five or more dollars in additional fares.

- 4) The amount and value of the subsidy is invisible, and not subject to regular review by the agency or the Congress. Hence, the level of subsidized services tends to grow well beyond that intended. A corollary is that the nonremunerative services provide an attractive legislative pork barrel whose costs are not revealed.

I should like to take this opportunity to speculate on the various methods of reform that might influence the CAB to be more responsive to the needs of the public in developing an efficient air transport system. As is evident from my statement today, I feel that current Board policy is misdirected (or at best, without direction). To this I might offer some personal observations.

First, upon initiating my studies of the airline industry in 1968, I was supposed to find that the CAB, whose mission is the economic regulation of the industry, had so few professional economists on its staff. The rare exception of a very capable economist of whom I am aware, appears to be an embarrassment to be ignored. By the same token, the membership of the Board has never included an economist, and to my knowledge and observation, the economic training and perception of the administrative law judges would appear most rudimentary. I am not suggesting that economic expertise would ensure consistently good decisions, or insulate a member of the Board, for example, from the pressures he faces, but one cannot help but believe that there would be fewer policies which aid no one/or are futile.

Second, the experience of the permissive regulation in California and Texas suggests that some substantial, phased movement toward deregulation should occur. I say this from a background of pragmatism, rather than from a doctrinaire "free market" philosophy. (I am a Ph. D. from Yale, not Chicago.) In fact, one of the remarkable things about the study of regulation of transportation is the consensus of almost all economists, "liberal" and "conservative," that it has in large measure failed its intended purpose or is currently obsolescent, and is desired only by the industries regulated.

Recognizing the improbability of a phased deregulation of the industry, I would like to offer some proposals that would cause airline regulation to be more efficient and responsive to the public. These proposals were made by James C. Miller III and me in our recent study of the industry for the Brookings Institution,¹ and are taken directly from that study:

¹ George W. Douglas and James C. Miller III, *Economic Regulation of Domestic Air Transport: Theory and Policy*, Brookings, Washington, 1974.

REFORMS UNDER EXISTING LEGISLATION

Under the Federal Aviation Act the Board has considerable latitude in framing regulatory policy. We shall here describe a number of recommendations which are possible under the existing statute. First, a set of possible actions that should not be attempted.

1. *Do not attempt to regulate return on investment.*—As described in chapter 4, carriers will employ nonprice competition to a point where the anticipated return on additional investment is equal to the carriers' own internal required rate of return. Board attempts to regulate this return precisely as a predetermined reasonable rate will prove fruitless and will lead the market equilibrium away from the efficient combination (see figure 4-2).

2. *Do not approve capacity agreements.*—As described previously, the long-range effect of capacity agreements is carrier inefficiency in matching capacity with demand. Another result is excess profits in capacity-controlled markets, provided fares are not adjusted downward accordingly, which represent an allocative efficiency cost.

3. *Do not approve fuel reduction and rescheduling agreements.*—Restrictions on fuel supplies to airline firms obviously limit the amount of capacity they can offer. Competition among firms in planning schedules leads generally to an efficient overall network, that is, capacity offerings responsive to passenger demand. Not only are rescheduling agreements not needed, but they lead to inefficiencies and create excess industry profits.

4. *Do not limit entry to protect incumbent carriers.*—As described in chapter 7, entry controls insulate existing carriers from competition. If a prospective entrant appears likely to succeed in the market to the detriment of an incumbent carrier, then this may be an indication that the new carrier is more efficient. Protests from incumbent carriers are to be expected, but to give them great weight is to encourage technical inefficiency.

5. *Do not suspend or find unlawful fare decreases on grounds of protecting competitive carriers.*—Understandably, whenever one carrier proposes to reduce a fare its competitors will object, preferring instead the existing fare level. Refusing to approve such an initiative protects less efficient carriers and constrains differentiation in price-quality options.

6. *Do not limit exit from service.*—If a carrier wishes to suspend or abandon a market, its decision is an indication that the social value derived from the service is less than the cost of providing it. To constrain exit is inefficient. (However, the Board should be liberal in certificating a new carrier in any abandoned market.)

7. *Do not regulate commuter carriers.*—Continuing the exemption for commuter carriers is a good way of testing the efficiency of trunk- and local-service carrier service. That is, if a commuter carrier can provide service under regulator-imposed cost disadvantages, then this is a market test of the inefficiency of trunkline and local service carrier provision.

8. *Do not further restrict (charter) operations of the supplemental carriers.*—The supplemental carriers provide a vital function in competing with the scheduled carriers. Not only do they provide benchmarks of technical efficiency, but they reveal the need for lower price-quality options in scheduled service. Without the supplementals the inefficiencies of trunk service would be partially masked.

FEASIBLE PROPOSALS OF AN AFFIRMATIVE NATURE

1. *Determine and bring about the optimum level and structure of fare-quality options.*—Hold a specific hearing in which the trade-off between fare level and quality is brought under close scrutiny and a determination is made concerning the optimal level and structure of fares and quality. At the same time, explore the feasibility of increasing the number of price-quality options.

2. *Hold general investigations regarding policies toward entry, exit, mergers, and collusion.*—At present, all of these matters are treated on an ad hoc basis. An investigation which looked at these issues in the same depth as the Domestic Passenger Fare Investigation looked at fares would be appropriate and presumably would lead to the identification of more specific, efficiency-inducing policies.

3. *Encourage price competition and market tests of price-quality options.*—Conclude that under section 1002(d) of the Federal Aviation Act a zone of reasonableness for fares is in the public interest. Such a zone might work either in terms of per se reasonableness (meaning lawful on grounds of reasonableness whatever the case), or prima facie reasonableness (that is, presumed to be lawful on grounds of reasonableness unless proven otherwise). This might also be

coupled with a stated policy of giving less weight to questions of alleged discrimination, preference, or prejudice. The zone might also allow for broad variations in price-quality options, thereby giving market tests of the preferred combinations.

4. *Reform the decisionmaking process.*—It would enhance economic efficiency if in the adversary process more emphasis were placed on substance and less on form. Also, it would improve the quality of decisions if more economics expertise were required of administrative law judges and Board appointees. Finally, in view of the tendency of the Board to minimize squawk, public or private interest advocates with economic efficiency positions should be encouraged to present their case.

While the above reforms do not exhaust the possibilities feasible under existing legislation, they include some of the more important ones, and, if adopted, would go far toward increasing the efficiency of airline markets.

REFORMS REQUIRING ADDITIONAL LEGISLATION

Even more substantive reforms are possible with new legislation. Essentially, initial legislation setting up a regulatory agency specifies broad objectives for regulation and grants powers to the regulator which ultimately take the form of constraints on industry behavior. Reform legislation typically can take one or more of three directions. First, it might change or identify more clearly regulatory objectives; second, it might specify particular restraints on the industry, thus telling the Board more clearly what to do; or third, it might prohibit certain previously imposed restraints, thus telling the Board what not to do. The reforms described below contain aspects of all three.

1. *Redefine public interest to mean economic efficiency.*—As described in the appendix, the legislative "Declaration of Policy," which essentially defines the term "public interest" as used in the statute, is ambiguous and contains mutually conflicting goals, some of which are inconsistent with economic efficiency. A simple legislative change which would have an important effect is replacing the Declaration of Policy with a policy statement admonishing the Board to foster efficiency in airline markets.

2. *Separate promotion activities from economic regulation.*—As described above, the Board has attempted to promote air transportation and this has resulted in efficiency losses. If there are public-good aspects of the industry which require its artificial promotion, then this is better accomplished through other means. For example, as the Ash Council has recommended, transfer the promotional activities of the Board to the Department of Transportation. Also, promotion, if it is to exist, should be designed to augment efficiency in the provision of the subsidized service. An example is the competitive bidding scheme proposed by the Board to assure service at low-density points.

3. *Alter burden of proof.*—Change the Federal Aviation Act to make entry and exit merely consistent with the public interest, rather than required by it. Make the approval of collusive agreements required by the public interest, instead of being "not inconsistent with the public interest." These changes arguably would make entry and exit freer and would restrain Board sanctioned collusion.

4. *Expand regulatory exemptions.*—Broaden the class of exempt carriers which may provide scheduled air service. This could be accomplished in a number of ways. First, grant commuter carriers an explicit exemption and liberalized standards of aircraft size. Second, allow existing charter carriers to engage in single-ticketed scheduled service. Third, totally deregulate the denser city-pair markets. The instances of inefficiency under complete deregulation are likely to be minimized the larger the market size; also, the greatest efficiency gains from deregulation are likely to be found in such markets.

5. *Withdraw or modify CAB power to approve intercarrier agreements.*—Revise section 412 of the Federal Aviation Act to eliminate the power of the Board to circumvent the antitrust laws and approve and enforce cartel agreements. With possibly few exceptions, agreements coming under this provision for the purpose of escaping antitrust liability are inconsistent with maximizing industry performance.

In both explaining regulatory behavior and in assessing the probability of reform, discussions of economists usually touch a common theme: that the firms being regulated, being few in number and having such a large, perceived stake in the legislation and policies of regulation carry an overwhelming influence when compared with the consumers, whose numbers are immense but whose burdens are ill perceived and spread thinly. It is my hope that the hearings of this committee may in some measure redress this bias. Thank you.

COMPARISON OF UNREGULATED INTRASTATE AIRLINES WITH REGULATED INTERSTATE AIRLINES

FRIDAY, FEBRUARY 14, 1975

U.S. SENATE,
SUBCOMMITTEE ON ADMINISTRATIVE
PRACTICE AND PROCEDURE OF THE
COMMITTEE ON THE JUDICIARY,
Boston, Mass.

The subcommittee met, pursuant to notice, at 9:45 a.m., in room 2003A, JFK Federal Building, Senator Edward M. Kennedy, chairman of the subcommittee, presiding.

Present: Senator Kennedy.

Also present: Stephen Breyer, special counsel; Philip Bakes, assistant counsel; Thomas M. Susman, chief counsel; and Stephen L. Jones, minority counsel.

Senator KENNEDY. The subcommittee will come to order.

OPENING STATEMENT OF SENATOR KENNEDY

The Subcommittee on Administrative Practice and Procedure is today continuing its hearings on Federal regulation of the airlines and its effects on air transportation. The subcommittee began these hearings in Washington last week, with representatives from various Government agencies and independent economists arguing that Federal regulation of airlines by the Civil Aeronautics Board is costly and inefficient. As one witness pointed out, while the traveler may be pleased to find the seat next to him empty so he can stretch out, he might not be as comfortable if he knew that he was paying for that empty seat.

The airline passenger these days can get free drinks on coach or a piano bar in the lounge. He can fly a "yellowbird" or other designer-colored airplanes, and can choose menus and movies. He can "fly Carol to Miami" or content himself in someone else's "friendly skies." But one thing he cannot do is fly cheaply. He may choose between airlines, but he cannot choose between air fares. A lot of people believe that the Federal Government is responsible. And they may be right.

The Civil Aeronautics Board regulates air fares. These have been skyrocketing in recent years and continue upward. Some economists have estimated that air fares presently average 32-47 percent, and in some cases 100 percent, higher than they would be without CAB regulation.

For Boston residents, that could mean flights to New York for \$15 instead of \$28, to Washington for \$21 instead of \$45, and to Los Angeles for \$90 instead of \$188.

The CAB also regulates the entry of new airlines into the marketplace. But the CAB often delays action on requests by existing carriers to serve new routes. And it generally discourages or refuses to act on applications by new airlines to begin new service. As a result, not one new trunk airline has started operation since 1938, while the number of major carriers has actually decreased because of mergers.

The people of Massachusetts know this. Northeast Airlines merged with Delta 3 years ago. Service has been cut back to many areas of the State. We are especially fortunate, however, to be in one of the few areas of the country receiving new service, from Air New England. In the current climate of Federal regulation, though, the future holds no special promise for a bright young innovative competitor in the airline business. For competition seems to be a word missing from the CAB's dictionary.

We will also ask the regulated airlines who fly the Northeast whether they have considered this question—whether they could provide the kind of low-price service that PSA and other State airlines provide in other parts of the country.

This subcommittee began its investigation of the CAB as a first step in the regulatory reform process. I was pleased to see that in our hearings last week, the administration responded to our efforts, and has promised to develop and support a legislative reform package. We will continue these efforts in future hearings.

The difference between low air fares and high air fares should not be the difference between the absence and presence of Federal regulation. If it is, then we must be prepared to overhaul regulation and make it more responsive to the citizens it is intended to serve.

Our first witnesses this morning will be Robert W. Clifford and Lawrence Guske.

Mr. Clifford has spent over 25 years of his career experience in airline management, and he is now president of Air California.

Mr. Lawrence Guske, is assistant controller of Pacific Southwest Airlines and has appeared as witness for Pacific Southwest Airlines in several hearings before the California Public Utilities Commission.

STATEMENTS OF LAWRENCE A. GUSKE, ASSISTANT CONTROLLER, PACIFIC SOUTHWEST AIRLINES, AND ROBERT W. CLIFFORD, PRESIDENT, AIR CALIFORNIA

Mr. GUSKE. Would you like for me to read my statement?

Senator KENNEDY. No, maybe just highlight it in 2 or 3 minutes, if you could do that for us.

Mr. GUSKE. Essentially some background on PSA, we serve only in the State of California. We serve the State with jet aircraft. We carry approximately 6.4 million passengers a year. Our current fares in our primary markets average approximately 5.68 cents per revenue passenger-mile. We have currently pending before the Public Utilities Commission, by which we are regulated as to fares and markets, an increase which would bring those primary market fares up to approximately 6.3 cents per mile. We currently serve 32 city-pairs in the State of California.

I think that summarizes who PSA is and the type of service we provide.

PSA'S "NO-FRILLS" SERVICE

Senator KENNEDY. I have had a chance to review the rates that are charged by PSA and allowed by the CAB. Why do you think you are able to charge a good deal less than regulated air service carriers?

Mr. GUSKE. Actually, in the State of California, the CAB carriers that compete with us have the same fares that we do. But as far as going to the point of fares, in and of themselves, I think it can be attributed to several factors. We try to keep our overhead as low as we possibly can. The type of service we offer is no-frills type service.

Senator KENNEDY. What do you mean by "no frills?"

Mr. GUSKE. We do not have food service.

Senator KENNEDY. Do people not demand that?

Mr. GUSKE. No, our flights are generally very short, approximately an hour.

Senator KENNEDY. Sort of like New York to Washington?

Mr. GUSKE. I think it would be somewhat similar. I am not familiar with that market.

We have no free alcoholic beverages. We have high-density seating on our aircraft, and we have a general policy of no discounting of our fares. We do not have military fares or excursion fares and such like that. The only discount fares are for children under the age of 12, and that is it.

I think that factor, and then our ability to generate passengers with a friendly type of service, which is, the more passengers, the more you can hold down your costs to the extent of being able to spread them over more passengers and so on.

Senator KENNEDY. Do you think it is completely coincidental, that even the certified carriers operating in competition with you in the intrastate market, charge about close to half of what the CAB formula is and just about what yours is? They do that in California and in Texas, but they do not do it in other parts of the country. Why do you think they do that?

Mr. GUSKE. I really could not speculate on other parts of the country. As far as the State of California is concerned, the fares are regulated by the Public Utilities Commission and at this point they have designated PSA as the most efficient fare setting carrier in the State, and that has been their policy that whatever fares they authorize for PSA they will also grant to CAB carriers. Since they do regulate the fares, that has a controlling interest to an extent.

Senator KENNEDY. Do you think competition has anything to do with these lower fares?

Mr. GUSKE. Again, I cannot speak for those carriers, but I think that would be a definite consideration of theirs in trying to meet competition.

Senator KENNEDY. What you are saying then is that you provide more seats in the plane and no food or beverages. Besides the courteous services that you extend, you are able to charge less for the miles that will be carried, and that this concept or idea has been endorsed by the people traveling your airline.

Mr. GUSKE. Yes, sir.

POSSIBLE EXPANSION BY PSA OUTSIDE CALIFORNIA

Senator KENNEDY. Would you like to fly outside of California?

Mr. GUSKE. Yes, we would. We currently have pretty much been serving the major markets in California. There is not much left for us to expand into. As far as our future goes, we would be very interested in flying outside the State.

Senator KENNEDY. Why do you not?

Mr. GUSKE. We have no application on file currently with the Civil Aeronautics Board, which may have jurisdiction in that matter, and we are not certificated by the Civil Aeronautics Board at this point.

Senator KENNEDY. If you would like to fly outside California, what are the reasons you are not making application to do so?

Mr. GUSKE. Well, we have not completed the necessary studies and so forth, which would be a prerequisite to filing applications or seeking additional routes.

Senator KENNEDY. Has there ever been a cost study done in an effort to find out why you provide services more cheaply than we do in the East?

Mr. GUSKE. Not that I am aware of.

Senator KENNEDY. You are not familiar with the CAB study of 1966?

Mr. GUSKE. I am not.

Senator KENNEDY. Do you think customers prefer the no-frills service you provide for short flights more than the CAB-type of service?

Mr. GUSKE. Well, all I can say is that our passengers appear to accept our services and they come back, and we have shown over the years considerable growth in our passenger total, so we believe our service is very well accepted.

AIR CALIFORNIA

Senator KENNEDY. Mr. Clifford could you tell us a little about the situation in California?

Mr. CLIFFORD. Senator, our situation is slightly different from PSA's. Ours is a California carrier, and have grown extremely fast. We carried 1.4 million customers in 1974. We have been in business since 1967.

Our primary entry into the business was not in a competitive nature rather than new services that our people felt were necessary in surveying the markets within California.

So our fares are slightly higher than PSA's. Our average fare is 6.4 cents a mile. Twelve of our 19 markets are in fact noncompetitive in nature, if you will, having started from markets that were not previously served.

We compete in five markets, and the fares that we charge are comparable to the other scheduled carriers in those markets, primarily, because the Public Utilities Commission grants fares throughout the State of California on all intrastate routes.

Senator KENNEDY. What do you charge to fly from Orange County to San Francisco, or San Diego to Oakland?

Mr. CLIFFORD. \$24.30, Senator.

Senator KENNEDY. And the flight from Boston to Washington is just about as far, is it not?

Mr. CLIFFORD. I am not sure.

Senator KENNEDY. How many miles is it?

Mr. CLIFFORD. From Orange County to San Francisco it is 344 miles.

CONTRAST BETWEEN AIR CALIFORNIA'S FARES AND CAB FARES

Senator KENNEDY. Boston to Washington is 399, and it costs almost twice as much. How can you fly more cheaply?

Mr. CLIFFORD. Well, I believe there are three basic reasons why Air California flies more cheaply. One, we are blessed in California with some weather circumstances and conditions that favor us, and having been an east coast operator, I am aware of the weather problems that are involved and would require higher fares.

We are a younger airline, and our employees—although we pay standard rates, if you will—

Senator KENNEDY. Do you know that the Boston-Washington route completes 98.2 percent of their flights?

Mr. CLIFFORD. We complete 99.8.

Senator KENNEDY. Is there much difference between 98.2 and 99.8 percent in terms of real cost savings?

Mr. CLIFFORD. I would not have a judgment, Senator. We fly higher load factors. Our break-even load factor is at this point 65 percent. So we gear our fares for what we believe we can attain in load factor, and have been successful in that degree.

Senator KENNEDY. In other words, you feel that by charging the lower prices, you can get more people on a flight and make a profit on that basis?

Mr. CLIFFORD. Yes, sir.

Senator KENNEDY. Has that been your experience?

Mr. CLIFFORD. Yes, sir, we try to gage our prices to a break-even load factor that is, in fact, attainable.

Senator KENNEDY. What type of planes does PSA fly?

Mr. CLIFFORD. Boeing 737's.

Senator KENNEDY. How many seats do you have in the plane?

Mr. CLIFFORD. We have the same number of seats as the Hawaiian carriers. I believe more seats than the 737 domestic operators.

Senator KENNEDY. Do you think you could provide the same sort of inexpensive service outside of California?

Mr. CLIFFORD. Yes, sir.

Senator KENNEDY. Would you like to do so?

Mr. CLIFFORD. Yes, sir.

We have no current applications. We were applicants in the Pacific-Northwest case some years ago. That has been our only entry into trying to fly interstate.

Senator KENNEDY. What happened in that case?

Mr. CLIFFORD. We were not a successful applicant.

Senator KENNEDY. Do you know why?

Mr. CLIFFORD. Not precisely, but there were public hearings, and the discussions were made without us being successful.

Senator KENNEDY. If you would like to serve other places, what really stops you?

Mr. CLIFFORD. An analysis on our part as to the potential success of application and ability to serve in a precise market.

Senator KENNEDY. Would you elaborate a little on that?

Mr. CLIFFORD. Well, prior to application into any new market we would do an analysis with the competitive services that were then available and we would apply only if, in our judgment, we saw a real need and requirement for additional services within the route.

We do not consider ourselves a cutrate airline, and it would not be our policy and philosophy to look at a route and try to steal passengers, if you will, from another carrier, but rather we would apply for the

route, if in our judgment, additional customers were potentially available in that route.

Senator KENNEDY. I understand that the CAB says that the California routes are cheaper because one of the reasons is they are denser, and they have more passengers. There are about 2 million passengers flying between Boston and Washington each year, one way. How many passengers fly between Orange County and San Francisco?

Mr. CLIFFORD. I believe a million—I think I have a figure—Orange County to San Francisco is 321,000 customers in 1973. Orange County to San Jose were 276,000, approximately. Orange County—

Senator KENNEDY. At least with regards to the issue of the denser being cheaper, the Boston-Washington route carrying 2 million versus Orange County to San Francisco or San Jose with approximately 300,000, that does not seem to be a substantial issue.

Likewise, the 98.2 percent versus 99.8 percent flight completions seems to be a very narrow variable. What are the other considerations?

Mr. CLIFFORD. Senator, I am not sure whether the completion factor really tells the whole story on the weather as a factor. There are delays enroute because of dense traffic, and long holds, and so on, that certainly would be a cost factor in this regard.

I am not sure what services are offered in the earn sector with regard to food service and so on.

CAB DENIAL OF AUTHORITY FOR INTRASTATE CARRIERS TO INTERLINE WITH CAB CARRIERS

Senator KENNEDY. If you want to fly from Boston to San Francisco to Orange County, could you buy a ticket in Boston to do that?

Mr. CLIFFORD. No, sir; you cannot. We would like to interline baggage and interline passengers for truly intrastate operations on a break of your trip, if you will, if you were planning on spending 1½ days in San Francisco, and traveling to Orange County. We have applied for such services and are not able to offer that.

Senator KENNEDY. Why have you not been able to get it?

Mr. CLIFFORD. Well, there is the question of inter- versus intra-state carriage, common carriage of customers.

Senator KENNEDY. Well, what happened to the applications?

Mr. CLIFFORD. The application was denied.

Senator KENNEDY. By whom?

Mr. CLIFFORD. By the Civil Aeronautics Board.

Senator KENNEDY. For what reasons?

Mr. CLIFFORD. I am really not familiar with that portion of the case, Senator.

Senator KENNEDY. You mentioned a little earlier that you would not want to enter a market at a cutrate to get passengers who already fly on another line. Is this the usual businessman's attitude toward competition?

Mr. CLIFFORD. No, but it is a very straightforward attitude of making sure there is enough market to make the load factor that is necessary in order to fly, a practical, attainable load factor.

Senator KENNEDY. What would happen otherwise?

Mr. CLIFFORD. Well, if we needed 65 percent to break even, and we got 55 percent we would lose, and we have no place to go except as a lost venture. Of course, we want to avoid that prospect.

Senator KENNEDY. But then you would not be reluctant to enter this market if you thought you could maintain a 65 percent load factor?

Mr. CLIFFORD. No, sir.

Senator KENNEDY. Would you enter it at the cutrate?

Mr. CLIFFORD. Yes, sir.

Senator KENNEDY. Thank you very much. I appreciate your coming.

Mr. CLIFFORD. Thank you.

[The prepared statements of Lawrence Guske and Robert Clifford follow:]

PREPARED STATEMENT OF LAWRENCE A. GUSKE, ASSISTANT CONTROLLER,
PACIFIC SOUTHWEST AIRLINES

We understand the focus of today's session to be on costs and fares in relatively short-haul, dense airline passenger markets. We hope that PSA's participation will assist the subcommittee in pursuing its interest in this important area.

PSA commenced scheduled airline service on May 6, 1949, between San Diego and Oakland via Hollywood-Burbank, utilizing one leased DC-3 aircraft. At present, PSA provides single-plane service in 32 airport pairs using three Boeing 737-200 aircraft with 115 seats, twenty Boeing 727-200 aircraft with 159 seats, one Boeing 727-100 with 128 seats and two Lockheed 1011 aircraft with 297 seats.

In expanding and developing from 1949 to the present, PSA has consistently sought to provide good air transportation service at the lowest possible fares. PSA believes that the air passenger market is price elastic. In addition to pioneering in the area of fares, PSA has concentrated much attention on development of traffic at the California satellite airports of Burbank, Oakland, San Jose, Ontario and Long Beach. Without the satellite operations, airport limitations and congestion would have posed serious constraints to the expansion of PSA's low fare service for the traveling public.

While we know that low fares increase traffic, PSA has not been able to isolate and relate particular traffic increases to particular fare offerings. Examples of market stimulation which can be attributed in part to PSA's lower fares are as follows:

1. In 1965, Pacific Airlines, the only carrier providing single-plane service between Los Angeles and San Jose, carried 56,000 passengers in that market. In May 1966, PSA commenced lower-fare service between Los Angeles and San Jose and for calendar year 1967, PSA carried 556,919 passengers for a two-year increase of nearly 1,000 percent.

2. In 1966, only Western and United provided jet service between Los Angeles and Sacramento. In February 1967, PSA entered the market with a fare level approximately 25 percent below the existing fares. In 1967, passenger traffic over the route doubled, and Western and United actually carried more passengers than in 1966, despite the competition from PSA.

PSA has historically exercised tight, austere controls over its costs. Four important areas where this has been done are:

1. *Overhead.* PSA employs tight expense controls and efficient flight and ground crew practices. It has only five top corporate officers.

2. *Basic transportation service.* PSA serves no food or free alcoholic beverages.

3. *High seating density.* PSA's single-class configurations of the aircraft it operates are about 20 percent denser than those of interstate airlines.

4. *No discounts.* PSA has offered half-fare for children 2 to 12, but almost no other discounts. As a result, PSA's system fare dilution is only 2 percent.

Tight cost control is still effective, we believe, to keep PSA's total costs below those of other carriers on a passenger-mile basis, but PSA's costs are rising, in common with those of the entire airline industry, at an alarming rate. PSA's fuel costs are among the highest in the nation. From 14.4 cents per gallon at the end of 1973, PSA's average price for a gallon of fuel soared to 31.2 cents as of November 1974, and we anticipate a cost of 46 cents by the end of 1975 under the Administration's crude oil program. At such a level, 1975 fuel costs would amount to \$47 million or 29.4 percent of PSA's total costs of airline operation, compared with \$14,396,000 and 14 percent of expenses in 1973. Although fuel

prices are the leading factor in PSA's cost increases, PSA is also subject to the same inflationary pressures that afflict the entire nation over the entire range of its costs.

PSA is subject to competition by interstate carriers over most of its system. PSA's primary competitor, United, has consistently matched PSA's fares. Until very recently, most other competing airlines published fares equal to PSA over route segments served in common. In past route and fare proceedings before the California Public Utilities Commission, these competing airlines have introduced evidence which indicated that they were incurring substantial losses charging PSA's fares for their intra-California services.

PSA's services have over the years yielded a profit, but a return on investment of only 1.06 percent for 1973—an inadequate return even under California PUC ratemaking standards. Substandard profitability for PSA along with losses for all competing carriers are, unfortunately, consistent with the California PUC's ratemaking approach. The California PUC has declared PSA to be the rate-making carrier in the principal California intrastate air transportation markets, on the ground that PSA is most efficient. As a result, once rate increases are granted to PSA after a full hearing, such increases are perfunctorily awarded to the other air carriers on request, on the basis of PSA's relatively low-unit costs rather than market or industry costs or the particular other carrier's costs. The California PUC has used a number of other ratemaking techniques which we at PSA have opposed as unsound and as calculated to prevent PSA, in spite of its austere cost management and high efficiency, from earning a fair return on investment. As a result of such nearsighted ratemaking techniques, PSA's public shareholders have received no cash dividends from 1970 to present.

PSA's present fare between Los Angeles and San Francisco before tax is \$19.21, or 5.68 cents per mile. We have pending with the California PUC a request for increase to cover general cost increases, not fuel, which would increase the fare to \$21.30, or 6.30 cents per mile.

The fact that we are asking the PUC for a fare of 6.30 cents per mile does not mean that PSA has stopped being a low-fare carrier. We still are dedicated to the lowest compensatory fares. While we are asking for 6.30 cents, the Eastern air-shuttle fares between New York, on the one hand, and Boston and Washington on the other, are 14.02 cents and 12.98 cents per mile respectively, and the lowest regular Boston-Washington fare is 10.44 cents per mile.

The most recent development in the California intrastate fare arena is that several interstate carriers now offer lower fares than PSA in principal markets. This came about in 1974, when PSA was forced to raise fares on all its routes to compensate for the increased price of jet fuel. Although in the past, the interstate carriers have normally raised their intra-California fares to match those of PSA, some carriers did not do so in this instance. As a result, Delta offers the lowest fare between Los Angeles and San Diego; Hughes Airwest the lowest between Los Angeles and San Francisco, and Continental is offering a lower fare between Burbank and San Jose.

PSA continues as a proponent of low airline fares. Today, however, PSA is faced with an unprecedented onslaught of deterrents to continuation and expansion of the availability to the public of such fares. Rampant inflation led by fuel prices unimaginable two years ago, a slumping economy, an inadequately responsive state regulatory agency, and competitors who for the first time are using fares as an offensive weapon against PSA, have all converged to challenge the continuation of PSA's traditional role as the low fare, intrastate airline. These are matters PSA feels should be kept in mind both in comparing intra-California airline markets and fares with markets and fares elsewhere in the country, and in devising solutions to the administrative problems faced by the carriers and the traveling public.

PREPARED STATEMENT OF ROBERT W. CLIFFORD, PRESIDENT, AIR CALIFORNIA

My name is Robert W. Clifford. I am the president of Air California, and we are pleased to appear before you. Air California is a scheduled air carrier operating within the State of California under a certificate of convenience and necessity issued by the Public Utilities Commission, the agency which regulates the public utilities and transportation services within California. We provide passenger and airfreight services to eight California cities constituting 19 city-pair markets. Air California was incorporated in 1966 to provide initial air service between Orange County and the San Francisco bay area. The company has grown from

an airline operating two Lockheed Electras (L-188) and transporting 293,000 annual passengers in 1967 to the operation of seven Boeing 737-115 passenger jets and one Electra serving 1.4 million customers in 1974.

The corporate mission of the company is to provide low-cost commuter-type air service in markets that do not have required service or receive poor and inadequate service from interstate airlines. Of the 19 markets presently served by Air California, 12 received first time service from Air California, 2 received better service, and 5 received competitive service. The State of California is to be admired for its foresight in recognizing the need for intrastate air transportation and enacting legislation which established an orderly control mechanism for route authorities, tariffs, and financial guidelines. California, if it were a nation, would indeed be the eighth largest economic producer (gross national/state product) in the world, so it naturally follows that communication and transportation are vital and dramatically necessary in an ever-changing way.

The Public Utilities Commission has been responsive in the recognition of new service route needs, and has been able to meet such needs through the availability of two rather large, viable, and competent transportation companies, Air California and PSA. The existence and growth of our companies is adequate and strong testimony as to the need for services of the type offered and the good judgment of our regulators. There is no question in my mind that services of the type we provide which are quickly responsive to new market needs and priced in innovative packages which develop markets with maximum speed would not be possible in the framework of present interstate certification processes.

Ours is an operation in which fares are priced at minimum levels which can be realistically supported by expected load factors. We, like all other air carriers, are currently caught in a pinch because of fuel prices. Although the Commission has been attentive to the fuel price increase, the additional 19 percent in our fares has somewhat depressed traffic. In comparison to other airlines, intrastate and interstate, our fares are in some instances lower and in some instances slightly higher. Our fares are lower than Hughes Airwest, however slightly higher than Continental, Western and PSA in our Ontario to Sacramento service. In order to encourage discretionary travel, Air California offers and is highly supportive of reduced rate incentives. We offer a discounted family plan, military fare, group rates, and a standby E-z fare (20 percent reduction on certain selected low volume flights).

Our operating costs are somewhat lower than the interstate carriers since we are relatively a new carrier and our seniority rates are not as mature as others. The price of our supplies, including fuel, spare parts, miscellaneous equipment, office supplies, etc., are probably comparable to those of other air carriers.

We don't look upon ourselves as a cutrate airline for, in fact, we charge fares that permit a fair level of profitability potential and offer services which are comparable to those of any air carrier operating short segment flights similar to ours. We require a relatively high load factor for breakeven and we maintain these load factors by effective scheduling of individual flights on daily schedules which match peak demand. That is, we schedule more trips on days which provide higher traffic potential (Fridays, holidays, etc.), and contract schedules on days of expected minimum activity, i.e., Saturdays, day after holiday, etc. We are able to control capacity through the use of our modern, computerized reservation system which utilizes the data bank of Continental Air Lines.

Our type of operation, which is based upon high frequency on short flight segments, requires close adherence to published flight schedules. The maximum possible completion of our scheduled trips on time is a constant concern. Our completion factor for the year 1974 was outstanding—99.8 percent with 89.2 percent of the flights operating on time (within 15 minutes).

Although our intrastate customers enjoy a high level of service proficiency, we are not able to offer interline ticketing or interline baggage exchange. This deficiency is brought about by the possibility of our being considered an interstate carrier if such service was offered. On two occasions we have requested Civil Aeronautics Board issuance of an exemption to permit interlining of baggage and tickets with stated restrictions which would negate the possibility of straight-through, direct interstate commerce. We understand the technical regulatory problems involved in the consideration of this matter; however, we believe that the traveling public would be best served through the adoption of a plan which would offer our services for trips which were not, in fact, interstate in nature.

Transportation services, in order to be effective and of value, must meet the needs of the people they serve. These needs are not static, but rather ever-chang-

ing. We believe the ingenuity and flexibility brought to the air transportation industry by carriers such as Air California should be recognized as beneficial and that the continued expansion of their services should be encouraged.

We are proud to be a member of an industry which provides services which are so vital to our national economy and well-being.

We thank you again for the opportunity to appear before you and would be pleased to answer any questions which would be of benefit in your consideration of these matters.

Senator KENNEDY. The next testimony will be from Dr. William A. Jordan, professor of managerial economics at York University, Toronto, Canada; and Dr. John R. Summerfield, president of Summerfield Associates, a transportation research and consulting firm.

During the past 27 years, Dr. Jordan has worked for Scandinavian Airlines System, Air France, Seaboard World Airlines, and Western Airlines. Dr. Jordan has consulted on airline and airport matters. He has taught graduate courses in economics and government regulation at Columbia, Stanford, Northwestern, U.S. International, and York University, and he is a colonel in the Air Force Reserve. Dr. Jordan is well known for his publications on airline regulation and capacity agreements.

Dr. Summerfield has directed transportation research at the RAND Corp. and has served as corporate economist and director of economic studies at Douglas Aircraft Co. and as vice president of economic planning at Western Airlines and Pan American World Airways.

Dr. Jordan, do you want to start, please?

STATEMENTS OF DR. WILLIAM A. JORDAN, PROFESSOR OF MANAGERIAL ECONOMICS, YORK UNIVERSITY AND DR. JOHN R. SUMMERFIELD, PRESIDENT, SUMMERFIELD ASSOCIATES

Dr. JORDAN. Thank you.

My presentation today is based on research for the past 10 years on the effects of CAB regulation. Rather than attempt a theoretical study, I decided the best way to do this would be to compare the actual performance of CAB-regulated airlines with the benchmark of the actual performance of those airlines not regulated by the CAB.

The nonregulated airlines are primarily the intrastate airlines, but not entirely. This study covers the post-World War II period with emphasis on the years since 1949.

CONTROL OF INDUSTRY ENTRY IS NECESSARY FOR REGULATION

One conclusion of this study is that a necessary condition for effective regulation is the control of entry. It is necessary to control entry to prevent rival airlines from entering should regulation cause fares to rise above average costs, and it is necessary to prevent entry in case costs themselves rise above the minimum average achievable.

The CAB has effectively closed entry into U.S. interstate airline operations. There have been 16 to 10 trunk carriers, decreasing in numbers from 1938 to the present time, with Pan Am being another large carrier, but primarily international.

There have been 21 to 8 local service carriers from 1946 to 1950 to the present time with Air New England being the latest addition after a 25-year hiatus in the authorization of such carriers.

In 1973, the total operating revenues of all U.S. airlines operating large aircraft were approximately \$13 billion. Of this \$13 billion, the 10 trunks plus Pan American counted for 84.2 percent, and each of these trunk carriers served between 37 and 111 cities with 60 to 390 aircraft each. Local service carrier share was 8.2 percent of the \$13 billion, and they served 50 to 95 cities per carrier with 33 to 133 aircraft. So these two CAB-regulated airline groups together have accounted for 92.4 percent of the \$13 billion or a total of roughly \$12 billion of this \$13 billion.

All other airlines in the United States accounted for the remaining 7.6 percent or roughly \$1 billion.

DISECONOMIES OF SCALE: 100 TO 200 AIRLINES WITHOUT REGULATION

The conclusions of my study indicate that without CAB regulation there would be between 100 to 200 or more airlines in the United States operating large aircraft in scheduled service, and figure No. 1, which is the one in the corner there, summarizes this. Twenty CAB-regulated trunk and local service carriers plus Pan Am as opposed to 200 or more nonregulated airlines without the CAB.

Senator KENNEDY. How can you make a statement like that when we have just heard from two operators, one of whom felt that unless you were very sure that you would be able to build up 65-percent passenger capacity, that you may very well go out of business? Here we have 20 with regulation. You talk about 100 to 200. How do you draw that conclusion? Would it not oversaturate the market and cause financial turmoil and disaster among carriers?

Dr. JORDAN. We should recognize that the nonregulated airlines have all been smaller lines.

Senator KENNEDY. Does that mean you go on a small line from Boston to Washington?

Dr. JORDAN. Yes, it would operate from 3 to 4 to 6 planes as opposed to 40 to 60 to 400 airplanes. The point is there is enough traffic to support small airlines with three or four aircraft and make them viable. They will be able to achieve all the possible efficiencies with that small operation, and such small airlines have been viable in the California and Texas situation without regulation.

What I am saying is that without regulation which causes airlines to be large, you would have a large number of small airlines, each one specializing in a certain kind of operation.

Senator KENNEDY. Why does regulation require that the airlines be large?

Dr. JORDAN. Because, given entry control, the trunks have been limited to those certified in 1938 and the local service carriers limited to those certificated between 1946 and 1950, and these are the only airlines that have been allowed to provide interstate service. As the city-pairs have expanded and total traffic has expanded, these airlines have been required to expand. Also, when an airline makes a major mistake, it is forced to merge like the Capital-United merger of some years back so with no entry the size of the remaining airlines increases. Closed entry is the cause of large airlines.

Senator KENNEDY. If you had a greater number of airlines actually required to go into a merger situation, as you pointed out, why does

that not run contrary to your thesis that you would have 100 to 200, if the experience has been in recent times that the total numbers have actually reduced? Why do you not believe if you start out with 100, that it will finally contract down to the 20 or so even without the regulation?

Dr. JORDAN. Because without regulation we find that airlines can be efficient, low-cost carriers with small numbers of aircraft, and therefore, as airlines become larger they become less efficient, and we will lose business to the small airlines that will enter.

I should mention that one very striking comparison—we have had merger acquisitions in CAB regulation. There has not been a single merger application in a nonregulated environment.

Senator KENNEDY. Is it more efficient to have a smaller number of planes and more airlines, or a larger number of planes and fewer airlines? It seems to me, for example, in the terms of trucks supplying the planes with gasoline or handling baggage that you would have regulated lines. Let us take, for example, the case of the trucks supplying planes with gasoline or handling baggage transfer. On the one hand, you would have the larger regulated airlines using one gasoline truck to refuel planes all day, while, on the other, you would have the smaller airlines using one gasoline truck to refuel four or five planes.

Dr. JORDAN. In response to that question, the gasoline truck is usually owned by the fuel company. It supplies airlines and it does not have to supply one airline.

Senator KENNEDY. Is that true of all these other services?

Dr. JORDAN. Yes; in terms of overall cost——

REGULATED FARES ARE 40-70 PERCENT HIGHER THAN UNREGULATED

Senator KENNEDY. Let's continue with your other testimony.

Dr. JORDAN. Fine.

Given closed entry, we find what are some results of CAB regulation. One clear result has been higher fares. I have shown in figure 2, a comparison of fares with regulation as opposed to fares without regulation. Those in red are with regulation. I have broken them down into short-haul, which I have defined as 0 to 250 miles, more or less; medium-haul from 251 to 1,000 miles; and long-haul over 1,000 miles. I have shown the Boston-New York, Boston-Washington, and Boston-Los Angeles fares as examples for these mileage categories.

In the case of a short-haul, the California analysis implies that the fares with regulation are between 40-70 percent higher than without regulation, and this is the basis for the difference between \$25.93, which is the actual regulated fare between Boston and New York, and the \$15 fare without regulation.

In terms of medium-haul, we find that the fare differences are around 75 to 100 percent, which is a difference of \$41.67 with regulation, versus \$21 without regulation for the Boston-Washington fare.

Finally, for the long-haul, we find fares roughly 100 percent larger with regulation, which gives you the \$187.04, the actual fare today, as opposed to without regulation, approximately \$95.

Now, these large differences are in city fares that have relatively high traffic density, being defined as over 100,000 passengers per year. The same analysis applies for small city-pairs with the fare differences

not as large, but with the nonregulated fares still lower than regulated fares. This analysis is based upon California, but supported by similar analyses in the Texas case, in the military airlift case where we had regulation by the CAB, imposed in 1960, and it is supported by a comparison with regulated fares in Canada, between Montreal and Toronto. We find with regulation in Canada, their fares are high, roughly the same as regulated fares in the United States.

So, without regulation fares are lower. With regulation, fares are higher.

Senator KENNEDY. Why?

REGULATION INCREASES COSTS—SERVICE COMPETITION

Dr. JORDAN. Well, that is the next question. If prices are so high why are there not large profits, for example.

Well, it appears that regulation also serves to increase costs of operation. Fares go up, costs also go up.

This is a major area of work. I have identified three important sources of these differences in cost. One source is decreased aircraft utilization. The second source is lack of specialization among the regulated airlines. The third source is the purchase of more and more inputs at higher prices, that is labor and aircraft, for example.

First, the matter about aircraft utilization. CAB regulation for the last 36 years has been asymmetric, it has been complete in entry and exit, it has been very effective in price, but it has been ineffective and almost nonexistent in the matter of service quality. Furthermore, the CAB has failed to allocate specific market shares to each airline. Instead, it has certified two or more airlines in many city-pairs whereupon it has said all right, fellows, your prices are fixed but you are in this city-pair, go ahead and get what you can get. The airlines' response has been well, we are controlled pricewise but not service qualitywise, let's have superior service quality. The way to do that is to operate brandnew airplanes at high-schedule frequencies. They have done this. Furthermore, they put fewer seats in their aircraft, and even given fewer seats, they have operated enough frequencies to give them lower numbers of passengers per flight, low-load factors.

Now, I have on figure No. 3, which I will refer to very shortly, an explanation of what this means in terms of cost. Looking only at aircraft costs, just the aircraft from the viewpoint of the airline costs, if we increased the load factor from the current 56-percent level, which is what it was last year, 1974, to 70 percent, a 25-percent increase, and by the way, the 70 percent load factor is the lowest load factor that existed between 1955 and 1964 in California. Quite feasibly, it has occurred regularly without regulation. If we have this kind of load factor in all U.S. operations we would decrease the fleet size by 20 percent, 25 percent increase in load factor, 20 percent decrease in passenger flights.

Such a decrease in the fleet would reduce the value of the aircraft fleet from the present \$12.25 billion, undepreciated value, for the trunk airlines, to about \$9.8 billion.

A second factor would be if we increased the average life of each aircraft by 25 percent, going from say 14 years, which is an average allowance for present CAB airlines, to 17½ years, you would de-

crease the average annual replacement costs from \$875 million to \$560 million per year, or a saving of \$315 million per year, roughly \$1.90 per passenger enplanement. Now, that is just one cost factor which results in an appreciable decrease in costs.

When you combine this with a decrease in operating costs associated with a decrease in the number of flights by 20 percent, you can see very quickly you get into very large differences in cost.

A second source of the reason that the intrastate carriers are low-cost is their ability to obtain a higher output per employee. Now, they are all small, the intrastate airlines. They have usually one kind of aircraft. Each provides a very specialized service and they find that the result of this has been employee specialization which has resulted in large outputs per employee.

If you look at figure No. 4 behind you, Senator, these are figures for 1965, which is not the most favorable year for comparison, because PSA had better years, but it is a good average year, the output per employee of the average trunk carriers measured on available seat-miles per employee was 603,000 available seat-miles per employee. Compared to PSA's 1,270,000 available seat-miles.

Looking at the next two columns, revenue-passenger miles, the average trunk carrier had 333,000 revenue-passenger miles, PSA had 804,000. It is a difference of 141 percent, Senator.

It is only fair to point out these figures are biased against the trunk carriers. They do not include cargo production. Yet the total number of employees does include cargo.

The third series of figures attempts to correct this bias. They provide figures biased against PSA. These are revenue figures. In 1965, the average yield per revenue-passenger mile for PSA was 3.85 cents, while trunk yield was 5.93 cents, roughly 50 percent higher. So it took PSA half again as many passengers to get the same revenues.

PSA had revenues per employee of \$32,500 versus \$22,200 for the average trunk. Even with the figures biased against PSA, it is still superior.

Taking these three comparisons and making adjustments, approximating how it works out overall, I would estimate that PSA is roughly 100 percent more productive per employee than the average trunk airline. That is an appreciable difference. This is an important cause of the lower costs of the intrastate carriers.

The final point is the matter of increased input prices. CAB has closed entry. Therefore, if any of the airlines buy their inputs from organizations which have monopoly power, then some of their monopoly gains, some of the airlines' monopoly gains can be captured by their input suppliers. We find evidence of this in terms of the labor share per total cost.

Here we find in figure No. 5 that for 1973 the average trunk carrier had 44.3 percent of its total costs accounted for by labor costs, while three intrastate carriers in 1974, that is, for 10 or 11 months in 1974, had an average total cost of 26.1 to 34.0 percent—much lower than the trunk or local service carriers. This is evidence that there are higher costs, higher prices paid to inputs by the regulated airlines.

In terms of your aircraft, the other major input into airline operations which the airlines must purchase, you have a situation where the manufacturers are encouraged to produce, to modify their aircraft and

give variations. A number of modifications are bought by the airlines so that manufacturers make a large number of different kinds of aircraft, thereby increasing production costs and aircraft prices. The demand is great by the airlines because they must have the most modern aircraft to provide high-quality service.

Those are three major sources of differences in airline costs with regulation as opposed to without regulation.

TOTAL COST OF REGULATION

Senator KENNEDY. Have you figured out how much that would save?

Dr. JORDAN. A rough estimate. Senator for the trunk carriers in 1973, total operating costs were about \$10.6 billion. It is my best estimate that without the regulation it would be reduced down to approximately \$7 billion, a saving roughly of \$3.5 billion, an appreciable difference.

Senator KENNEDY. Do you figure, that based upon these variables, \$3½ billion could be saved by consumers with deregulation?

Dr. JORDAN. Yes, that is correct.

EFFECT OF COMPETITION ON SAFETY

Senator KENNEDY. What about safety? How can we be sure that if we get these 100 to 200 airlines without regulation that we are not going to have people's lives endangered?

Dr. JORDAN. Well, we turn again to the evidence. First of all, all airlines, whether interstate or intrastate, are controlled by the Federal Aviation Agency, regardless of CAB regulation. So they have that same requirement for safety as controlled by the FAA.

Second, within California there have been two fatal accidents, one a DC-3 in 1949, with a loss of nine lives, including the wife and son the owner of the airline, which was a painful experience for him. In 1964 there was a second crash, an airline operating out of Lake Tahoe, which is a very high altitude and a small airport, with a loss of 85 lives. In both cases the airlines went out of business, the second case because the FAA rescinded the operating license, but nevertheless they went out of business which gave the intrastate carriers the suspicion that perhaps if they are unsafe they would not be around very long. So there is motivation to be safe in that very real sense.

In terms of deaths per revenue-passenger miles, those two accidents, given the low-traffic base for the period from 1949 to 1965, give a relatively high average of number of deaths per 100,000 of revenue passenger miles. But if you extend those same number of fatalities into the present time, roughly 8 more years, it goes down to approximately that of the trunk carriers. So the evidence is not clear, based on those two crashes for the shorter time period, less safety, more fatalities per 100,000 revenue-passenger miles. If you extend the period you find comparable safety. Again the key point is if you are unsafe, if you are small, you are going out of business, because there are very good substitutes available to take over your business.

Senator KENNEDY. That is a pretty tough test for 100 or 200 carriers. I would think that people would want to know with 100 or 200 carriers, which ones are safe. They are on the market today and if they have a fatality they are out, but couldn't they come back under some

other name? How will we be able to give the kind of assurances that would prevent this?

Dr. JORDAN. I would say it is important for the FAA, who must check the management of every airline and its operating procedures, to be very careful about that. If the airline has a crash and the airline goes out of business because they are negligent, the FAA should be responsible to make sure those same people did not go back into business, would suspect.

Also, once you do have a crash in your operation it is harder to re-enter without regulation.

UNFAIR COMPETITION (PREDATORY PRICING)

Senator KENNEDY. What about predatory pricing? Would that not bring about a good deal of chaos for the consumer?

Dr. JORDAN. Well, Senator. I have just finished a study of predatory pricing and practices. The theoretical background provided by Professor McGee years ago said predatory pricing is rare because it is costly. You can do it easier by merging, buying them out.

I had three cases where it was alleged, predatory cases. I tested those and found in two cases there was great doubt as to any predatory practices. In one case there may have been, but again not sure. This is consistent with the position that predatory practices are rare. I, therefore, suspect that with a large number of airlines you will have relatively little predatory practices. If you can get new entry, why be a predator? The guy goes out of business if you take him over; otherwise, his assets remain and can be used for reentry. Predation is very, very costly and rare.

PACIFIC SOUTHWEST AIRLINES—INCREASINGLY REGULATED

Senator KENNEDY. Have you had any practical experience in the airline industry?

Dr. JORDAN. Yes. I started working with the airlines in December of 1947. My experience spans most of the post-war period. As you mentioned, I worked four airlines, most recently from 1960 to 1964 for Western Air Lines in Los Angeles, and I worked as an airport consultant from the airport viewpoint, and of course, I have my military service with the Military Airlift Command.

Senator KENNEDY. After all of this has been said and done, could we not explain it that perhaps PSA is under California regulations and this is just sort of a specialized situation in California?

Dr. JORDAN. Well, California regulation is interesting, Senator. They are starting to change. Before 1965, there was little regulation. Open entry, no regulation of price decreases. Anybody could come in and offer their initial fares with no questions asked.

Following 1965, the California Public Utilities Commission was given jurisdiction, and they have perhaps since 1969 closed entry. It takes awhile for these adjustments to take place. Things do not happen overnight. PSA is starting to act like a regulated airline. We find between 1969 and January 1975, this last fare increase, that their percentage fare increase is very similar to the percentage increases of the airlines regulated by the CAB.

You notice on that figure No. 5, PSA of the three intrastate carriers has the highest labor share of total costs. It is getting out towards the level of total trunk carriers.

My hypothesis is that 10 years from now when I do a restudy of the California situation that if the present PUC situation has been maintained we will be finding PSA and the others more like the CAB airlines.

Senator KENNEDY. Why is that?

Dr. JORDAN. Because California regulation has become very similar to CAB regulation, different in procedure or different in its detail, but the economic results from fragmentary evidence since 1969 indicate that the cases are becoming very, very similar. Closed entry in California is very important.

Senator KENNEDY. Mr. Summerfield.

Mr. SUMMERFIELD. Thank you, Senator.

My testimony does not differ in fact very much from Dr. Jordan's. It is a fact that costs are different. I present a different interpretation of why these costs are different. It is based on a study of the actual operating environments of the intra-California carriers versus the trunk and local service carriers.

COSTS SAVED BY PSA BECAUSE IT DOES NOT FLY INTERSTATE (INTERLINING, TICKETING, ACCOUNTING)

To summarize briefly what is contained in a little more detail in my written testimony, a number of differences exist because of the fact that PSA and Air California are intrastate carriers operating in restricted geographical areas. In the first place, because they don't do any interline work, as Mr. Clifford pointed out, the reservations clerks don't need to know anything about how to get from Santa Ana to Boston because they are not allowed to route you that way. This means you don't have to train them, a major saving in training costs. But the big saving is in the time they spend on the telephone when you call for a reservation. They simply make point-to-point reservations. According to my estimates, the average length of call for reservations is at least three times as long for a trunk carrier as for an intrastate carrier. This represents about a 3 to 1 difference in the manpower required to man the reservation system.

A second way in which this carries over is in the ticketing. PSA uses a very simple cash register receipt as a ticket. They don't have to figure out what the fare is between Boston and Modesto, Calif., a market for which there may be no quoted fare. A carrier that writes interline tickets must add up fares through several routes to be sure they have the lowest fare. Again, there are substantial economies because intrastate carriers cannot do this.

Senator KENNEDY. If the agents did have interline training the same as other carriers, couldn't that mean that they would gain more revenues because they would get additional kinds of services?

Mr. SUMMERFIELD. That is possible, that they would gain additional—

Senator KENNEDY. Isn't it likely? Don't you suppose they would certainly get some?

As I understand, if you want to go from Boston to San Francisco to Los Angeles, and you want to fly that San Francisco to Los Angeles leg on PSA, which is cheaper, you can't get a ticket on it.

Mr. SUMMERFIELD. You can if you wait till you get to San Francisco to buy the ticket.

Senator KENNEDY. That is the point. If people wanted to fly, and knew PSA was cheaper, wouldn't they take PSA? And would not that help to offset additional training costs for reservation clerks?

Mr. SUMMERFIELD. It might. It would expand the whole system, Senator, so they would end up having more airplanes and more flights. Whether the cost would go up proportionately or not, I do not know.

Senator KENNEDY. Maybe load capacity would change from 65 percent full up to 75 percent.

Mr. SUMMERFIELD. I don't know, Senator. That is speculation. What I have tried to do is limit myself to the areas in which there are data to support the analyses.

Revenue accounting is a third way in which this lack of interlining saves the intrastate carrier a good deal of money.

Senator KENNEDY. What is the cost for interlining, have you figured that out?

Mr. SUMMERFIELD. My estimate for those three functions for PSA, for reservations for ticketing and for revenue accounting, is on the order of \$11 million a year difference for the size of operation that PSA now has. This is based on data on the cost per passenger of these services and some estimates based on my experience.

Senator KENNEDY. How much does that work out to per passenger?

Mr. SUMMERFIELD. A little under \$2 a passenger. PSA said they carry about a little less than 6½ million passengers a year.

Senator KENNEDY. So it is about \$1.50.

Mr. SUMMERFIELD. \$1.50, \$1.70.

Senator KENNEDY. Even with a \$1.60 additional charge, it is difficult to explain the sizable difference in the fare between PSA and the CAB-regulated airlines.

Mr. SUMMERFIELD. That is right, but there are other factors, some of which have been mentioned, but let me try to put some on dollar amounts on some of these other factors, also.

COST SAVED BY PSA BECAUSE IT DOES NOT SERVE FOOD

They don't have food service. If food service were at the relatively simple level of local service carriers, in other words, and if they had longer routes on which some food service was required or they felt it was necessary to give the kind of food service that, for example, local service carriers do, that might add another \$3 million. That is based on——

Senator KENNEDY. But, they don't have that, do they?

Mr. SUMMERFIELD. No, they do not have the kind of route structure that operates over longer distances; typically they have about 1-hour flights. On 1-hour flights, hardly anybody serves food.

If they had a longer route structure and operated like the trunk or local service carrier, then in all likelihood they would have food service.

One of the main ways they benefit from this is that, because they don't have food service, they don't need galleys, and there is room for

additional seats. This provides them room for extra passengers on flights that would otherwise be sold out and not available.

Senator KENNEDY. From the consumer's point of view, there is no real problem with that, is there? If they want to give up lunch, for that hour's ride either from Los Angeles to San Francisco, or, from Boston to Washington, can't they?

Mr. SUMMERFIELD. No, I am merely trying, Senator, to explain the differences in cost structure between two different types of operation, and trying to explain why these costs actually exist. It has really nothing to do with the regulatory process is what I am saying. The differences result from the nature of the route structure in some cases or the nature of the geographical confinement of the system. In fact, if you had 100 to 200 different airlines, as Dr. Jordan suggested, many of them would have these short segments and some of these differences would appear.

INTERLINING

One of the problems, however, with these self-contained units like PSA and Air California is that, if they existed for the whole country, it would be terribly difficult to get around because of the point you brought out a minute ago. You can't make a reservation—you can make a reservation if you make a long-distance telephone call. You can't get a ticket here.

If we had many of these small intrastate operations the whole integrated system we depend on, not to get from here to Los Angeles or Washington, but from here to Podunk would fall apart. We would have a difficult time getting all these connecting services tied into the different carriers.

Senator KENNEDY. Is there any reason this couldn't be computerized in some kind of central agency? As I understand, in less than a minute, a Chicago policeman can call in an automobile license plate and find out who owns it.

Mr. SUMMERFIELD. That is correct.

Senator KENNEDY. Is it so difficult then to computerize ticket interlining?

Mr. SUMMERFIELD. Of the 58,000 city-pairs that are now served, many don't have fares quoted between them. For those with fares listed in the OAG there could be a retrieval process, though it might be expensive. But for the person who wants to go from here to Chicago, to Des Moines, and then down to Dallas and so on, the airlines have spent a lot of money trying to computerize this and they have found it really can't be economically done except for the relatively simple itineraries.

Senator KENNEDY. You mean everybody who is traveling from Boston to Washington is paying for computerized fare construction for the person flying from Fargo to Podunk, and if they are, we ought to know about it, shouldn't we? We are already paying too much in terms of energy underwriting for other areas of the country, and now we find that when we go from Boston to Washington we are paying for that integrated system as well.

Mr. SUMMERFIELD. But that part is not in the computer because it was just too expensive to do it. It is really the very simple routings that are in the computerized systems of the airlines. If you want to

ask these questions of representatives who operate these computer systems——

Senator KENNEDY. Let me get back to another point, when you were talking about the route structure and about how it really wasn't the CAB, but it was the route structure that determined such considerations as food service. Isn't it really the CAB that develops those route structures? Couldn't they, by regulation, provide that there be a more efficient or lower cost service, in these particular areas?

Mr. SUMMERFIELD. Well, the CAB has, of course, no authority to set fares. Fares are recommended or applied for by the carriers based on their need to get a return on their investment. What I am trying to point out is that there are differences in the cost structure of the trunk and local-service carriers from the cost structure that exists in a small intrastate carrier. These differences make it difficult, impossible in many cases, to operate at lower fares for a larger system. There are other costs, and I am trying to review with you basically what those costs are.

Some of them are the result of having an integrated system, which makes it more convenient for the public.

LABOR COSTS SAVED BY PSA

There are some costs related to unionization, that is, the union rules. One of these has to do with productivity. The one reason that cost differences are narrowing is that as airlines get older, the unions organize the workers and get stronger. Although PSA pays its pilots about the same amount per hour as its competitors do, they have a different set of operating rules that enable PSA pilots to get maybe 20 hours a month more flying time within the same maximum time than trunk carrier pilots do. This is a matter of union regulations, not of the management of the airline. Dr. Jordan's speculation that PSA labor rates are going up is probably a reflection that the unions get stronger as the airline gets stronger and as the airline is older.

Mr. Guske pointed out that younger airlines have lower seniority structure and hence a lower wage-cost.

On the basis of the numbers that I was able to get from the relatively sparse data that was published with the public Utilities Commission, my estimates, Senator, are that if PSA operated in the same operating environment and with the same kind of route structure as the trunk and local-service carriers, their pretax profits would have been reduced on the order of \$20 million.

Senator KENNEDY. As I understand this, PSA has about 61½ million passengers so that \$20 million in increased costs would mean about \$3 additional fare per passenger. Yet PSA's fare from San Francisco to Los Angeles is \$6 lower than the CAB carriers' intrastate fare and \$18 lower than their interstate fare. Even taking the lower figure for the moment, how can you account for the other \$3?

Mr. SUMMERFIELD. I don't have a complete answer to where the differences are, Senator, and there are other differences that I have not been able to get any data on. I have, for example, not been able to make any estimates of differences in the training costs that I alluded to earlier, or some of the other differences. The \$20 million is based on

those things for which I was able to get data from the rather sparse amount of data available for the Public Utility Commission filings and PSA applications for fare increases.

Senator KENNEDY. Fine. Thank you.

Mr. Jordan, do you have any comments you want to make on any of these points that have been raised?

Mr. JORDAN. I agree with Dr. Summerfield that if PSA were allowed to operate in the manner of trunk carriers they would indeed have higher costs. My position is that trunk carriers operate the way they do—not because they are bad people—but because they are regulated and they have certain rules they follow and this kind of game results in these kinds of outputs. PSA or nonregulated airlines do not operate in this manner. This is the whole point. They would operate efficiently in long-haul services as well as short-haul services. The only reason why PSA is a short-haul carrier is because it can't be a longer-haul carrier, it is limited to California. Part of the folklore of the airline industry is that long-hauls are good, not bad, yet intrastate carriers have been efficient even in short-haul operations.

In terms of the decreased profits, I would argue he is talking about increased costs, not decreased profits, because as you pointed out he is ignoring the revenue side of the interlining operation. But given his cost estimates, which I don't agree with, but they have given them, the difference is only \$3 per passenger. I would assert that in the case of reservations, for example, even if PSA did have interlining reservations the person who called in Los Angeles for a ticket to San Francisco would say, hello, when is your next flight to San Francisco, fine, reservations for so and so, telephone number 893-1808, and hang up, that is a minute call. There would be no long 3-minute telephone conversations. I have things to do with my time and they have things to do with their time. It wouldn't change for those simple kinds of passenger trips. I see no reason why the cost would be inflated by a large degree.

The point is that without regulation you have specialization. You have carriers operating some type of aircraft in a very simplified manner. There are no excessive aircraft purchases or excessive aircraft operations. This saves a large amount of money. A 747 now costs \$30 million; that is roughly the cost of this building, I would guess, and when you start talking about 100, or 200, or 300 large aircraft we have important differences in cost. If you talk about differences in employee output as I mentioned in figure 5, differences in costs are very important, and this is due to regulation.

Senator KENNEDY. Thank you very much.

[The prepared statements of Dr. Jordan and Dr. Summerfield follow. During the hearing of February 18, 1975, the chairman of the subcommittee asked Continental Airlines to respond to Dr. Jordan's testimony. The response by James L. Mitchell of Continental Airlines, a reply by Dr. Jordan, and further remarks by Continental Airlines are all printed after the prepared statement of Mr. Harvey Wexler of Continental Airlines, which follows the testimony of the panel of airlines on February 18, 1975, pp. 587 ff., below. Dr. Summerfield's written responses to Dr. Jordan's testimony and to a subcommittee staff memo are included after his prepared statement.]

PREPARED STATEMENT OF DR. WILLIAM A. JORDAN

QUALIFICATIONS

My name is Willian A. Jordan, I am a professor of managerial economics at York University, Toronto, Canada. During the past 27 years I have been employed in traffic, sales, and research positions by four airlines (the Scandinavian Airlines System, Air France, Seaboard World Airlines, and Western Air Lines), have consulted on airline and airport matters, and have taught graduate courses and/or done research in economics and government regulation at Columbia University, Northwestern University, Stanford University, U.S. International University and York University. My Ph. D. in managerial economics is from the University of California, Los Angeles, and my research publications include the following: Airline Regulation in America: Effects and Imperfections, 1970; Producers Protection, Prior Market Structure, and the Effects of Government Regulation, 15 Journal of Law and Economics, April 1972: Airline Capacity Agreements: Correcting a Regulatory Imperfection, 39 Journal of Air Law and Commerce, Spring 1973: If We're Going to Regulate the Airlines, Let's Do it Right, in James C. Miller III, ed., Perspectives in Federal Transportation Policy, 1975.

I am a colonel in the U.S. Air Force Reserve and since 1959 have been assigned to Headquarters, Military Airlift Command. I was a member of the American Statistical Association Advisory Committee for Statistical Research to the Civil Aeronautics Board from 1967 until it was disbanded this past year. My current professional memberships include the American Economic Association, Western Economic Association, Canadian Economic Association and Canadian Transportation Research Forum. Individually, or jointly, my wife and I own stock in the following airlines: Air California, Airlift International, Braniff International, Capitol International, Continental, Nordair, North Central, Pacific Southwest, Sedalia-Marshall-Boonville, Southwest, United.

INTRODUCTION

A useful way to investigate the actual results of the activities of independent regulatory commissions is to compare the performances of firms regulated by such commissions with those of other similar firms operating beyond the commissions' jurisdictions. It is possible to make such cross-sectional studies of Civil Aeronautics Board (CAB) regulations because the CAB does not regulate all parts of the U.S. airline industry. The intrastate airlines operating entirely within California, and recently, within Texas provide the best examples of airlines not regulated by the CAB. Also, the CAB has exempted third-level/commuter carriers from most of its regulatory control so long as they operate only small aircraft. Furthermore, comparisons with Canadian airline performance can be useful because, while Canada is a different country, it shares many geographical, demographic and social characteristics with the U.S.

Another way to measure the effects of regulation is to compare industry performance before and after a major change in regulatory policy. Time-series studies such as these provide less reliable results than cross-sectional studies, however, because considerable time often is required for the effects of specific actions to come to full fruition. In the meantime, other developments may impinge on or otherwise obscure the effects of the policy action under study. Occasionally, though, time-series evidence can be quite useful, especially when it corroborates evidence obtained from cross-sectional analyses.

A fundamental problem in using time-series data is estimating the effects of government regulation is that a change in a regulatory policy merely results in a relative change in performance under regulation. Unless the action to be studied results in a change from where regulation did not exist to one where it was implemented, there is no benchmark or baseline with which to determine the absolute effects of regulation per se. Without the benchmark of non-regulated performance, it is difficult, if not impossible, to determine whether some regulatory policy results in an additional deviation from non-regulated performance by 10 percent, or 20 percent or whatever. For example, a CAB action may cause the regulated trunk and local service carriers to raise their fares by only five rather than 7 or 8 percent. Thus, it might be argued that CAB regulation decreases the relative level of regulated airline fares. This may be true, but without knowing what fares would have been without CAB regulation one can not conclude from this that such regulation reduces absolute

fare levels. It may well be that the existence of CAB regulation since 1938 has resulted in fares that are substantially higher than what would have developed in its absence. If so, then any impediment the CAB now introduces to fare increases merely serves to reduce the degree to which regulated fares exceed non-regulated fares.

This testimony will present evidence from various cross-sectional and time-series studies regarding the effects of CAB regulatory practices on the economic performance of the regulated airlines. Emphasis will be placed on entry and the number of airlines in existence, fares, and productive efficiency, with some mention also being made of safety and profits. The primary source of this evidence will be a comparative study of the California intrastate carriers and the CAB-regulated airlines, supplemented by additional evidence concerning the Texas intrastate carrier, Canadian airlines, third-level carriers, and the results of extending CAB regulation over military charter operations.

CAB REGULATION HAS DECREASED THE NUMBER OF AIRLINES

One result of CAB regulation has been the effective restriction of entry into airline operations. The only airlines so far authorized to provide trunk service were those who obtained their certificates of public convenience and necessity under the "grandfather" provisions of the Civil Aeronautics Act of 1938 (52 Stat. 988). Today, 10 of the original 16 trunk carriers remain—the others having been acquired by or merged with surviving trunk carriers.¹ The same is true for the local service carriers. With the single recent exception of Air New England, all of the existing local service carriers were among the 21 airlines the CAB allowed to enter the industry during the "local feeder" experiment between the end of World War II and October 1950. Again, acquisition by or merger with other certificated carriers characterized the means by which failing local service carriers have left the industry, and now only eight of the original 21 remain.²

The extent to which CAB regulation has effectively restricted new airlines from impinging upon the activities of the original trunk and the local service carriers can be seen by comparing the relative shares of the almost \$13 billion of overall operating revenues earned systemwide in 1973 by all U.S. airlines operating large aircraft.³ The trunk carriers, plus Pan American, accounted for 84.2 percent of this total revenue while the local service carriers earned another 8.2 percent. Thus, these two groups consisting of 19 scheduled passenger/cargo carriers accounted for 92.4 percent of the \$13 billion, leaving the remaining 7.6 percent for the Alaskan, Hawaiian, territorial, helicopter, intrastate, all-cargo, supplemental and other carriers (31 in all) that operated in 1973.⁴

This means that, combined, these 31 other carriers earned fewer operating revenues than the local service carriers and less than one-tenth the revenues of the trunk carriers and Pan American. One would think that the managers and employees of the trunk and local service carriers would be quite pleased with this situation and would feel that CAB regulation had been good to them during these past 36 years. Indeed, had the early airline pioneers been told back in 1938 that CAB regulation would result in this allocation of such large operating revenues one would expect they would have been quite pleased with the prospect. But present-day industry leaders appear to be dissatisfied with this situation and are endeavoring to increase their present dominant share. It should be recognized, however, that none of these leaders proposes the abolition of CAB regulation, merely its improvement.

In California, the California Public Utilities Commission (PUC) did not have power over airline entry within the state until September 1965. During the years from 1946 to 1965, at least sixteen airlines inaugurated scheduled service with large aircraft within the confined area of California, and entry occurred throughout these years rather than being concentrated in a single time period (as was the case under CAB regulation). Fourteen of these airlines subsequently terminated service after operating from only a few weeks to over six years. In not one of these cases, however, was a failing airline acquired by or merged with

¹ William A. Jordan, *Airline Regulation in America: Effects and Imperfections*, 15-17 (1970). Also, *CAB Handbook of Airline Statistics*, 568-69 (1973 ed.).

² Id.

³ CAB, *Air Carrier Financial Statistics*, 1-14, 98 (December 1973); Air California, *Annual Report* (1973); PSA *Annual Report* (1973); and Southwest Airlines *Annual Report* (1973).

⁴ The only carriers excluded from this compilation are the few third-level carriers who have CAB exceptions to operate large two-engine propeller aircraft.

another carrier. This is in marked contrast to the consistent usage of these methods of exit by the CAB-regulated airlines. This implies "that the asset of an airline that is of unique value to other airlines is its CAB certificate of public convenience and necessity, not its aircraft, facilities, or good will, . . ."⁵

Not only does the California experience demonstrate that CAB regulation has effectively impeded entry into the interstate airline industry and has promoted exit via merger and acquisition, but it also indicates that this regulation has served to limit the number of airlines in existence at any point in time. Based on the system sizes and traffic volumes of the California intrastate carriers, it appears that without CAB regulation from 100 to over 200 airlines operating large aircraft would have existed at any one time in the 48 contiguous states from 1949 through 1965. This is in sharp contrast to the 35 to 24 trunk and local service carriers that the CAB actually allowed to operate during that period.⁶ Should this range seem unrealistically large, one should note that a total of 201 commuter air carriers operated under very constrained conditions during fiscal year 1973, and that 126 of these small airlines operated for the entire year.⁷ Implicit in the conclusion that CAB regulation serves to limit greatly the number of airlines in existence is the finding that there are no appreciable economies of scale in nonregulated airline operations, and that a high degree of specialization by airlines would occur without regulation.⁸

Effective entry control is a crucially important factor in protecting established airlines, their employees and their suppliers. Not only does it insulate the airlines from the results of honest errors in judgment and from possible managerial inefficiencies, but it also allows monopolistic or oligopolistic suppliers of inputs (such as labor, aircraft, petroleum products and airports) to charge ever higher prices for their products and services. All of these factors increase the operating costs of regulated airlines. Furthermore, market protection enhances the viability of charging higher prices so that the regulated airlines can seek to capture monopoly profits. Given entry control, cost increases and higher fares can persist because new, more efficient carriers paying lower prices for their inputs are prohibited by CAB regulation from entering the industry, offering lower fares for their services and, eventually, replacing or reducing the sizes of the existing airlines. Evidence on fare levels and operating costs will be presented in the following sections.

CAB REGULATION HAS INCREASED AIRLINE FARES

Evidence from California

Article XII of the California State Constitution has long empowered the PUC to regulate the intrastate rates and fares of all transportation companies, including the airlines. In practice, the PUC has controlled airline fare increases, but not decreases.⁹ Effective September 17, 1965, the PUC received authority from the legislature to regulate entry and exit to and from scheduled airline passenger service.¹⁰ It has exercised this power over entry with an enthusiasm comparable to that of the CAB. To date, it has issued to just five airlines certificates of public convenience and necessity to operate large aircraft (those carrying over 30 passengers) in scheduled passenger service. Four of these, including three "grandfather" certificates, were issued in the fall of 1966,¹¹ while the fifth, and last, certificate was issued in early 1969 and then reissued in September 1971.¹²

All other applications for certificates have been denied.¹³

⁵ William A. Jordan, *supra*, note 1, at 17-14, esp. pp. 23-24.

⁶ *Id.* at 24-32.

⁷ CAB, Commuter Air Carrier Traffic Statistics, Year Ended June 30, 1973, 3 (June 1974).

⁸ William A. Jordan, *supra*, note 1, at 191-94.

⁹ *Id.* at 2-4.

¹⁰ *Id.* Also, State of California, Statutes and Amendments to the Codes, 1965 Chapters, A-3, 2145 (1965).

¹¹ PUC decision 71310 (September 20, 1966) for Air California; PUC decision 71393 (October 11, 1966) for Pacific Southwest Airlines (PSA); PUC decision 71490 (November 1, 1966) for Mercer Enterprises, and PUC decisions 71648 (December 6, 1966) and 72560 (April 18, 1967) for Holiday Airlines.

¹² PUC decision 75373 (February 25, 1969) issued a certificate to California Sierra Airlines which was revoked by PUC decision 78682 (May 18, 1971) when this carrier failed to inaugurate service. Essentially the same route to the Mammoth Lakes ski resort area was then awarded to Sierra Pacific Airlines in PUC decision 79166 (September 21, 1971).

¹³ For example, the applications of Air Metropolitan and Pacific Air Transport to operate between points in the Los Angeles and San Francisco metropolitan areas were denied in PUC decisions 74837 (October 15, 1968), and 76110 (September 3, 1969).

This change in California regulation provides some interesting comparisons with which to evaluate the effects of entry control on fares. Prior to 1965, it is possible to make a cross-sectional comparison between the fares of airlines operating within California without entry protection and the fares of CAB-regulated airlines who were protected from entry into their interstate city-pairs. Then a comparison can be made between the fares of the intrastate and CAB-regulated carriers after 1965 when both enjoyed closed entry. Finally, a time-series comparison can be made for percentage fare changes by the two types of carriers following the PUC's effective closure of entry after 1965. First the pre-1965 comparison.

One important aspect of PUC rate regulation was that the initial tariff of a new carrier had to be accepted providing it conformed to basic technical and publication requirements.¹⁴ Thus, there was no regulation of the fares introduced by new carriers. The first major period of entry by intrastate carriers occurred in 1949 when seven airlines (including Pacific Southwest Airlines) inaugurated coach service between the larger city-pairs and, in the process, introduced new low fares. Of these seven airlines, only PSA has survived so its fares will be used here, both because they are representative of those adopted by other intrastate carriers at the specified times and because they provide a continuous fare history for the entire period.

TABLE 1.—PSA'S COACH FARES COMPARED WITH CAB-AUTHORIZED 1ST-CLASS FARES FOR THREE MAJOR CALIFORNIA CITY-PAIRS, 1949

City-pairs	Fares				CAB-authorized percent greater than PSA	
	PSA ¹		CAB-authorized ²			
	One-way	Round trip	One-way	Round trip ³	One-way	Round trip
LAX/BUR-SFO/OAK	\$9.95	\$19.90	\$21.05	\$40.00	111.6	101.0
LAX/BUR-SAN	5.65	11.30	6.75	12.82	19.5	13.4
SAN-SFO/OAK	15.60	31.20	27.80	52.82	78.2	69.3

¹ Coach fares effective May 23, 1949 to Mar. 27, 1951.

² 1st-class fares effective Sept. 1, 1948 to Apr. 29, 1952. From Feb. 1 to Oct. 14, 1949, the CAB authorized Western to offer a "no-meal" tariff which gave a 5-percent discount on all fares. Thus, during this 9½-month period, Western's one-way fares were equal to ½ the regular round trip fares.

³ A 10-percent discount was given on the return portion of round trip journeys by CAB-regulated airlines.

Source: William A. Jordan, "Airline Regulation in America," 276-78, 284-87 (1970).

Table 1 compares the 1949 coach fares of PSA in the three major California city-pairs with the first-class fares authorized by the CAB and utilized by United and Western airlines who were the CAB-regulated airlines serving all three of these city-pairs. It is necessary to compare coach with first-class fares in 1949 because CAB-regulated carriers did not offer coach service in short-haul city-pairs at that time, making first-class their lowest available fare.

Table 1 shows that the CAB-authorized one-way fares ranged from 19 to 111 percent higher than the fares of PSA (and other intrastate carriers). The greatest difference was in the Los Angeles-San Francisco city-pair where a medium stage length (340 miles) combined with high traffic density resulted in low operating costs for the intrastate carriers. The smallest difference was for Los Angeles-San Diego where a short stage length (109 miles) and much lower traffic density yielded higher operating costs and, therefore, higher fares per mile.¹⁵ The lower fares introduced by the intrastate carrier greatly benefited passengers who preferred somewhat inferior service quality and low fares to high-quality, high-price service. These passengers, in turn, benefited the intrastate carriers by utilizing their services. In 1949, total traffic in these three city-pairs increased 34 percent and almost one-third of all passengers utilized the low-fare coach service of the intrastate carriers. At the same time, the CAB-regulated airlines' first-class traffic fell 9.4 percent from its 1948 level.¹⁶

As shown in table 2, this same fundamental fare relationship still existed in 1965 after over 16 years of open entry within California.

¹⁴ William A. Jordan, *supra*, note 1, at 114.

¹⁵ 1949 total on-line origin and destination passenger traffic on all carriers in the three major California city-pairs were: LAX/BUR/LGR-SFO/OAK=459,400; LAX/BUR/LGB-SAN=81,700; and SAN-SFO/OAK=29,200. *Id.* at 307, 311, 315.

¹⁶ Total on-line O&D passenger traffic for these three city-pairs grew from 426,000 in 1948 to 570,000 in 1949. Of the 1949 total, the intrastate carriers accounted for 184,300 passengers and the CAB-regulated airlines 386,000. *Id.*

TABLE 2.—PSA'S COACH FARES COMPARED WITH CAB-AUTHORIZED COACH FARES FOR THREE MAJOR CALIFORNIA CITY-PAIRS, 1965

City-pairs	One-way coach fares ¹				CAB-authorized, percent greater than PSA	
	PSA ²		CAB-authorized ³			
	Propeller	Jet	Propeller	Jet	Propeller	Jet
LAX/BUR-SFO/OAK.....	\$11. 43	\$13. 50	\$21. 70	\$23. 70	89. 9	75. 6
LAX/BUR-SAN.....	6. 35	6. 35	9. 45	10. 90	48. 8	71. 6
SAN-SFO/OAK.....	17. 78	19. 85	27. 15	29. 25	52. 7	47. 4

¹ Round-trip fares equal twice the one-way fares for all carriers.

² Effective Apr. 20, 1965 to Aug. 2, 1969.

³ Effective Feb. 1, 1962 to Feb. 1, 1968. Applicable to interstate passengers making stopovers in these cities on journeys originating and/or terminating outside California. Also, the jet coach fares were approved by the PUC in April 1962 for intrastate passengers utilizing interstate jet flights.

Source: William A. Jordan, "Airline Regulation in America," 111, 279-87 (1970).

The lowest CAB-authorized coach fares for 1965 were 47 to 90 percent greater than PSA's coach fares. This somewhat decreased range in fare differences, compared with 1949, resulted from two developments. First, starting on May 14, 1950, the CAB allowed the interstate airlines to provide coach service and fares in California city-pairs so this 1965 comparison is based on coach fares for both categories of carriers.¹⁷ Second, since 1952 the CAB has promoted the adoption of an ever larger fare taper whereby short-haul fares per mile (such as for Los Angeles-San Diego) have been increased more than the fares per mile for longer-haul city-pairs.¹⁸ Generally speaking, given these developments, it can be concluded that had CAB regulation kept the California intrastate carriers from inaugurating service the coach fares in these three major California city-pairs would have been those authorized by the CAB and, therefore, would have been from 47 to 90 percent higher than they actually were.

Since the PUC has had the power to close entry since 1965, it would seem reasonable to predict that differences between CAB-authorized fares and those of PSA should now be less than before. To the contrary, as shown in table 3, even following the PUC's most recent fare authorization (effective January 29, 1975), the percentage differences between PSA's fares and those authorized by the CAB (effective November 15, 1974) have increased to a range of from 70 to 108 percent compared with the 1965 range of 47 to 90 percent.

The above findings are surprising, but it should be remembered that they reflect the effects of accumulated fare changes since 1949. Actually, since the PUC's decision to prevent new carriers from entering the major California city-pairs was not fully implemented nor apparent until late 1969, it may be

TABLE 3.—PSA'S COACH FARES COMPARED WITH CAB-AUTHORIZED COACH FARES, FOR THREE MAJOR CALIFORNIA CITY-PAIRS, JAN. 29, 1975

City-pairs	One-way jet coach fares ¹		CAB-authorized percent greater than PSA
LAX/BUR-SFO/OAK.....	\$19.21	\$39.23	104.2
LAX/BUR-SAN.....	9.95	20.71	108.1
SAN SFO/OAK.....	26.85	45.71	70.2

¹ Round-trip fares equal twice the one-way fares for all carriers.

² Effective Jan. 29, 1975.

³ Effective Nov. 15, 1974. The CAB has authorized an additional fare increase and restructuring to become effective Apr. 29, 1975.

Sources: CAB orders 74 11-62 (Nov. 14, 1974) and 74-12-109 (Dec. 27, 1974). PUC decisions 83814 (Dec. 10, 1974), 83918 (Dec. 30, 1974) and 83939 (Dec. 30, 1974). Norman Richards, Asst. Chief, CAB domestic passenger fare section, telephone conversation (Jan. 14, 1975).

¹⁷ Id. at 78.

¹⁸ Id. at 64-65. Also, CAB Orders 74-3-82 (March 18, 1974) and 74-12-109 (December 27, 1974).

more meaningful to look for possible effects on fares from this action by comparing fare increases between 1969 and early 1975 than by comparing fare levels in 1975. It happens that the CAB-authorized two-fare increases in 1969—the first significant increases since February 1, 1962—with the second resulting in a major increase and restructuring of coach fares that became effective on October 1, 1969.¹⁹ Similarly, the PUC also authorized PSA to increase its fares twice in 1969 with the second becoming effective on December 3; and it happens that these increases were the first implemented by PSA since December 12, 1960.²⁰ Thus, the fares in effect at the end of 1969 provide like bases for a time-series comparison of the effects of CAB and PUC regulation under closed entry. This comparison is presented in table 4, and it indicates how PSA and the PUC, on the one hand, and the interstate airlines and the CAB, on the other hand, responded to such factors as inflation, airport security expenses and increases in petroleum prices, all under similar regulatory conditions.

TABLE 4.—INCREASES IN COACH FARES FROM LATE 1969 TO EARLY 1975: PSA COMPARED WITH CAB-AUTHORIZED FARES FOR THREE MAJOR CALIFORNIA CITY-PAIRS

City-pairs	One-way jet coach fares ¹				Percent increase	
	PSA		CAB-authorized		PSA	CAB-authorized
	Dec. 3, 1969	Jan. 29, 1975	Oct. 1, 1969	Nov. 15, 1974		
LAX/BUR-SFO/OAK.....	\$15.00	\$19.21	\$30.00	\$39.23	28.1	30.8
LAX/BUR-SAN.....	7.38	9.95	15.00	20.71	34.8	38.1
SAN-SFO/OAK.....	20.95	26.85	36.00	45.71	28.2	27.0

¹ Round-trip fares equal twice the one-way fares for all carriers.

Sources: Table 3. CAB order 69-9-68 (Sept. 12, 1969). PUC decision 76447 (Nov. 18, 1969).

The similarities between the percentage increases for the two categories of carriers in these three city-pairs are indeed remarkable. For the first time since 1949, percentage increases in PSA's fares have been almost the same as those for CAB-authorized coach fares. This is certainly not conclusive evidence that PSA's pricing practices under the new PUC regulator environment will be about the same as that of the CAB-regulated airlines, but it is consistent with the hypothesis that similar regulation does have similar effects on airline fares. Actually, it is much too soon to draw firm conclusions on this matter. It takes many years for the effects of an important change such as the imposition of entry control to work its way through the economy, but there appears to be a start in this direction.

Overall, the California experience provides strong evidence that one major accomplishment of CAB regulation has been to increase airline fares by large amounts. Since the CAB establishes fares on a nationwide basis, the sizes of these increases would vary with conditions in individual city-pairs. For short-haul city-pairs, present coach fares are probably between 40 to 70 percent higher than they would be without CAB regulation—with the larger differences occurring in those city-pairs with the higher traffic densities.²¹ Thus, without CAB-regulation, current Boston-New York and New York-Washington one-way coach fares would probably be around \$15 and \$17 vs. the actual fares of \$25.93 and \$27.78.²² In medium-haul city-pairs (between, say, 250 and 1,000 miles), it appears that CAB-authorized coach fares range from 75 to over 100 percent higher than non-regulated fares. This means, for example, that absent regulation the Boston-Washington coach fare would be around \$21 instead of the current \$41.67.²³

¹⁹ Id. Also, CAB orders 69-2-98 (February 19, 1969) and 69-9-68 (September 12, 1969). The first of these orders increased coach fares by \$2 in city-pairs 500 miles or less apart, and by \$1 in city-pairs between 501 and 1,800 miles apart. The second order established a fare structure based on a \$9 terminal charge and various line-haul charges starting at 6¢ per mile for the first 500 miles.

²⁰ Id. at 285. Also, PUC decisions 75899 (July 8, 1969) and 76447 (November 18, 1969). Together, these two decisions yielded fare increases of 11.1, 16.2 and 5.5 percent in the three major city-pairs.

²¹ In addition to the Los Angeles-San Diego data, the fare experience in eight minor California city-pairs from 1951 to 1965 also support this conclusion. Id. at 115-33.

²² 1 Official Airline Guide 143, 150, 716 (North American Edition, January 1, 1975). The distances between these two city-pairs are: BOS NYC=191 miles, NYC DCA=215 miles. CAB, *supra*, note 1, at 433.

²³ Id. Boston and Washington are 406 miles apart.

Finally, extrapolating the California evidence in conjunction with our knowledge that average costs of airline operations decrease with distance, leads to the conclusion that CAB-authorized fares in the transcontinental city-pairs are also around 100 percent higher than they would be without regulation. That is, rather than paying \$187.04 (plus tax) to fly from Boston to Los Angeles, one would pay only \$90 to \$100 for unregulated service.²⁴

Differences of these magnitudes are startling to say the least, and they lead to the question of whether or not the California experience may be due to unique factors other than regulation. For example, it is correctly pointed out that California weather is milder than other parts of the country and that the three major city-pairs have extremely heavy traffic volumes. These arguments overlook the fact that the weather is also good in both Los Angeles and, say, Phoenix (358 miles apart) yet the high, allegedly cost-based, CAB-authorized coach fares have applied in that city pair rather than the lower California-type fares. Indeed, the Los Angeles-Phoenix coach fares have been identical to those in the Chicago-Minneapolis/St. Paul city-pair (344 miles apart) despite the differences in weather conditions in these two city-pairs.²⁵ Similarly, if weather is so important, why isn't a lower fare formula applied to Los Angeles-Miami service than to Los Angeles-Boston service?

Regarding traffic density, it should be noted that in 1948, the year before the intrastate carriers inaugurated low-fare service, Boston-New York/Newark was the largest city pair in the U.S., with Los Angeles/Burbank-San Francisco/Oakland being a poor second accounting for about 35 percent fewer true O&D passengers.²⁶ Yet, as indicated in table 1, efficient intrastate carriers were able to survive in the then lower-density California city-pairs at much lower fares per mile than the CAB authorized for the major East Coast city-pairs and, remember, this was well before the days of airport congestion. True, due in part to the availability of low fares, by 1972 the Los Angeles San Francisco "area" pair accounted for 5.6 million on-line O&D passengers compared with 2.1 million true O&D passengers in the Boston-New York "area" pair.²⁷ It should be recognized, however, that the 5.6 million Los Angeles-San Francisco passengers were accommodated through eight airports and 13 separate airport pairs, compared with only four airports and three airport pairs for Boston-New York, and that low intrastate fares were available in all of the Los Angeles-San Francisco airport pairs even though four of them each accounted for less than 200,000 O&D passengers in 1972.²⁸ No, possible cost differences due to weather and traffic densities come nowhere near accounting for the differences of 100 percent or more that have existed between PSA's fares and those authorized by the CAB.

Fortunately, supplementary evidence regarding the effects of regulation on airline fares is available from the Texas intrastate experience, Canadian regulation, and from U.S. military airlift procurement. Brief summaries of some of this evidence are presented in the following sections.

Evidence from Texas

On February 20, 1968, the Texas Aeronautics Commission (TAC) issued a certificate of public convenience and necessity to Southwest Airlines authorizing it to provide scheduled intrastate service between Dallas/Ft. Worth, Houston and San Antonio.²⁹ Immediately thereafter, Braniff Airways and Texas International Airlines began over three years of litigation in the Texas and U.S. Federal courts, the CAB and the TAC to prevent Southwest from inaugurating service.

²⁴ In April 1967, World Airways (a supplemental carrier) applied to the CAB for authority to operate scheduled nonstop service between California and the East Coast at a "thrifty service" fare of \$79.50 compared with the then existing coach fare of \$145.10. 86 Aviation Week and Space Technology 27 (May 1, 1967). Similarly, applying the CAB's recently approved low-season seat-mile rate for charter operations with aircraft having more than 229 seats (2.4¢ per seat-mile) and assuming a 65-percent load factor, yields a \$96.00 one-way fare between Boston and Los Angeles (2,600 miles apart). CAB regulation PS-57 (October 18, 1974) at 17.

²⁵ See, for example, *supra*, note 22, at 201, 542. Note that the difference between origin and destination traffic for these two city-pairs is not great. In 1972, ORD-MSP=476,000 passengers while LAX-PHX=343,000. CAB, *supra*, note 1, at 433.

²⁶ BOS-NYC/EWR=550,500 passengers, LAX/BUR/LGB-SFO/OAK=297,600. CAB, *Airline Traffic Survey* (March and September 1948).

²⁷ CAB, *supra*, note 1, at 433; and PUC, *Intrastate Origin-Destination Passengers of Scheduled Air Carriers, Quarter and Twelve Months Ended December 31, 1971 and 1972*, 2 (Report 1511.33, 1974).

²⁸ PUC, *supra*, note 27, at 4-6. Also, see appendix B.

²⁹ Thomson & McKinnon Auchincloss, Inc., *Prospectus, Southwest Airlines Co.*, 8 (June 8, 1971). Southwest was incorporated on March 9, 1967 (Southwest Airlines annual report, note 1, 1971).

As a result of this, Southwest was unable to inaugurate service until June 18, 1971, and it was forced to incur legal expenses of well over \$500,000 before it even began operations.¹⁹ While it is not known whether TAC regulation will effectively close entry within Texas, the problems Southwest had makes it appear that future entry will be restricted. Thus, the regulatory structure within Texas is probably more like the current PUC and CAB situations than the open-entry environment of California prior to 1965.

Initially, Southwest offered a \$20 one-way price (fare plus 8 percent transportation tax) between Dallas-Houston (222 miles) and Dallas-San Antonio (253 miles) compared with the CAB-authorized jet coach prices of \$27 and \$28, respectively.²⁰ Braniff and Texas International immediately matched these prices for their intrastate passengers, but not for passengers originating or terminating outside of Texas and thus subject to CAB regulation. The full price histories for these two city-pairs through December 1974 are given in appendix A. This appendix shows that, starting on July 9, 1972, Southwest raised its day-coach price to \$26 (almost back to the earlier CAB-authorized level). Braniff and Texas International quickly matched this higher price and, subsequently, re-adopted CAB-authorized fares which resulted in the three \$1 to \$2 price increases shown in the appendix. The most interesting developments during this period were Southwest's introduction of a \$13 one-way, day-coach price between Dallas and San Antonio on January 22, 1973, followed by Braniff's introduction of a retaliatory \$13 price between Dallas and Houston's Hobby Airport for a 60-day period starting February 1, 1973.

It is clear that the entry of an intrastate carrier did serve to lower prices paid by passengers in these city-pairs. This was especially true between Dallas and San Antonio where Southwest relied on its lower price to make up for its infrequent service (it scheduled 48 to 66 weekly one-way trips compared with Braniff's 210 to 260 weekly trips).²¹ In this city-pair, Braniff's regular day-coach prices were 93 to 115 percent higher than Southwest's—quite similar to the California experience. In the Dallas-Houston city-pair, in contrast, Southwest provided much more frequent service and operated to and from convenient Love Field in Dallas and Hobby Airport in Houston. As a result, it was able to attract passengers at relatively high weekday prices that were almost equal to the CAB-authorized prices. It did, however, initiate low weekend and night-coach prices of \$13 and \$15 which resulted in CAB-authorized coach fares being 87 to 108 percent higher during evenings and weekends.

On October 1, 1974, Southwest modified its Dallas-Houston price structure by decreasing the day-coach price from \$28 to \$25, and it then extended this price structure to its other two city pairs. Table 5 summarizes these new prices and compares them with those of the CAB-regulated airlines following the CAB-authorized fare increase of November 15, 1974.

TABLE 5.—SOUTHWEST'S COACH FARES COMPARED WITH CAB-AUTHORIZED COACH FARES FOR THREE MAJOR TEXAS CITY-PAIRS, NOV. 15, 1974

City-pairs	One-way coach prices ¹			CAB-authorized percent greater than southwest	
	Southwest		CAB-authorized ³	Day	Night/weekend
	Day	Night/weekend ²			
DAL-HOU.....	\$25	\$15	\$31.37	25.5	109.1
DAL-SAT.....	25	15	32.37	29.5	115.8
HOU-SAT.....	25	15	29.37	17.5	95.8

¹ Fare plus 8 percent Federal transportation tax.

² Effective after 7 p.m. on weekdays and all day on Saturdays and Sundays.

³ Includes the 37 cents airport security surcharge. Southwest does not assess a security surcharge.

Sources: 1 "Official Airline Guide" 7, 280, 282, 469 (North American Edition, Dec. 1, 1974). Richard Robertson, Sales Representative, Southwest Airlines, telephone conversation (Jan. 23, 1975)

²⁰ William A. Jordan, *Some Predatory Practices Under Government Regulation?*, 22-24 (processed, January 1975). Southwest Airlines, *supra*, note 29.

²¹ See appendix A. Prices (fares plus 8-percent transportation tax) are used in this analysis because the practice of rounding prices to the nearest whole dollar simplifies the data. Fares were used in the California analysis because the transportation tax changed from 15 to 10 to 5 percent at various times after 1949 before being set at the current 8-percent rate on July 1, 1970.

²² William A. Jordan, *supra*, note 28, at 31-32.

Day-coach price differences of 17.5 to 29.5 percent are not as spectacular as the differences of over 100 percent that were available between Dallas and San Antonio during most of 1973 and 1974, but it should be noted that the most important city-pairs had the largest differences and savings of \$6.37 and \$7.37 per 45- or 50-minute trip are significant to many individuals. Travelers on evenings and weekends are, of course, benefited by an additional \$10, and the price differences are again around 100 percent.

Certainly, by simply allowing this single intrastate carrier to enter and provide service, the TAC has benefited many Texas travelers, as well as Southwest,³⁴ at the expense of the CAB-regulated airlines. Again, the key factor was entry. The most effective way for a new firm to carve out a viable share of a market is to offer comparable service at lower prices. Only if more efficient or innovative firms are allowed to enter does such economically useful rivalry occur. It remains to be seen whether or not the TAC will allow still other new airlines to test their mettle in this manner. If it does, one can predict a continuation or an increase in the price differences shown in table 5. If, on the other hand, the TAC closes entry to potential Texas intrastate carriers, one can predict that at most the present differences will persist, and it seems more likely that the percentage differences will decrease. In any case, by allowing Southwest to inaugurate service, the TAC has provided additional evidence that CAB regulation does serve to increase airline fares.

Evidence from Canada

While there have been differences in administrative procedures and in relative independence from various branches of government, the regulatory powers of the Air Transport Committee (ATC) of the Canadian Transport Commission (and its predecessor, the Air Transport Board) have been quite similar to those of the CAB.³⁵ Since 1938, all Canadian airlines (including intraprovincial and the smallest of fixed-base or bush operators) have been subject to regulatory control over entry and exit, prices and service quality.³⁶ Furthermore, the largest Canadian airline, Air Canada, is a Crown (government-owned) corporation which has received special consideration and protection from both the Canadian Parliament and the regulatory commissions.³⁶

Montreal-Toronto is the city-pair within Canada most like the major East Coast and West Coast city-pairs in the U.S. Montreal and Toronto are 322 miles apart and in 1972 a total of 758,520 origin and destination passengers flew between them.³⁷ This traffic volume resulted in it being ranked about eleventh in total size on the North American continent in 1972 and, overall, it is clear that Montreal-Toronto is a high-volume, medium-haul city-pair.³⁸ Among U.S. airport pairs of about the same traffic density and distance are Los Angeles-Oakland (712,720 O&D passengers in 1972 and a distance of 339 miles), Los Angeles-San Jose (666,312 passengers and 309 miles), and Boston-Washington (570,000 passengers and 399 miles).³⁹ A common fare has long been in effect between Los Angeles/Burbank and San Francisco/Oakland/San Jose, and it happens that the simple average of the resulting six airport-to-airport mileages is 322 miles—the same as the Montreal-Toronto mileage.⁴⁰ This mileage similarity facilitates direct comparisons between fares available in these two city-pairs.

If relatively complete regulation (including entry control) has similar effects on increasing fares, one would expect the regulated coach fares between Montreal and Toronto in 1965 to be about the same as the CAB-authorized coach fares between Los Angeles and San Francisco and, to be much higher than PSA's fares which had developed in a relatively unregulated environment. Furthermore, one

³⁴ During the twelve months ended September 30, 1974, Southwest earned a net income of \$2.1 million on total revenues of \$13.1 million. Southwest Airlines, Annual Report (1973); and Third Quarter Report (9-months ended September 30, 1974).

³⁵ William A. Jordan, Comparisons of American and Canadian Airline Regulation 2-10 (a paper presented at the Society of Government Economists sessions, Allied Social Sciences Association National Convention, December 28, 1972).

³⁶ *Id.* at 3-4.

³⁷ *Id.* at 4. Trans Canada Airlines Act, Stat. Can. c 43 (1937).

³⁸ Statistics Canada, Aviation Statistics Centre-Service bulletin 1-12 (April 1973). Also, 1 Official Airline Guide 8 (North American Edition, October 15, 1974).

³⁹ Compare the 758,520 Montreal-Toronto O&D passengers with those listed in appendix B. Note, interairport mileages differ slightly from intercity mileages.

⁴⁰ PFC, *supra*, note 27, at 4. Also, CAB, *supra*, note 1, at 433.

⁴¹ William A. Jordan, *supra*, note 1, at 305.

would expect that increases in regulated Montreal-Toronto coach fares from 1965 to early 1975 would be similar to the increases in CAB-authorized fares in the California city-pair. In contrast, PSA's fare increase for this period should be somewhat less since it was not clear until 1969 that entry into major California city-pairs had been closed by PUC regulation. Table 6 presents the fare data that test these hypotheses.

TABLE 6.—COMPARISON OF PSA, CAB-AUTHORIZED AND CANADIAN COACH FARES ¹
LOS ANGELES-SAN FRANCISCO VS. MONTREAL-TORONTO
JUNE 1965 AND JAN. 29, 1975

City-pair and fare source	Coach fares ¹			Percent increase June 1965– Jan. 1975	
	June 1965		Jan. 29, 1975 (Jet)	Propeller– Jet	Jet–Jet
	Propeller	Jet			
LAX/BUR-SFO/OAK/SJC:					
PSA	\$11.43	\$13.50	\$19.21	68.1	42.3
CAB-authorized	21.70	23.70	39.23	80.8	65.5
Montreal-Toronto ATC/ATB-authorized:					
(Can\$)	23.00	23.00	37.00	60.9	60.9
(US\$) ²	21.30	21.30	37.37	75.4	75.4

¹ Fares are used rather than prices (fares plus taxes) because of the different transportation taxes in the 2 countries.

² In 1965, the official exchange rate was \$0.925 U.S.=\$1 Canadian. In January 1975, it was about \$1.01 U.S.=\$1 Canadian.

Sources: Tables 2 and 3, Official Airline Guide (quick reference North American edition, June 1, 1965, and North American edition, Jan. 15, 1975).

Comparisons of these data are complicated somewhat by the fact that Canada has never had a higher fare for jet service than for service provided on propeller aircraft, and by fluctuations in the exchange rates between the two currencies. Regardless of these factors, it is clear that regulated Canadian fares have been very similar to the CAB-authorized fares and have been much higher than PSA's fares both in 1965 and 1975. In 1965, about three quarters of all nonstop flights between Montreal and Toronto were provided by propeller aircraft (Viscounts and Vanguards)⁴¹ and the U.S. dollar fare (paid by residents of the U.S.) was almost identical to the CAB-authorized propeller fare in Los Angeles-San Francisco. In January 1975, when only jet service was available in both city-pairs, a U.S. resident paid just \$1.86 (4.7 percent) less to fly between Montreal and Toronto than he paid for interstate coach service over the same distance in the U.S.

In terms of fare increases, PSA's very low propeller fare resulted in an increase from its propeller fare in 1965 to jet fares effective January 29, 1975 that is similar to the Canadian experience and somewhat lower than the CAB-authorized fare increase. However, when comparing fares for jet service in both 1965 and 1975, PSA's fare increase is much smaller than both the CAB-authorized fare increase and the Canadian experience (whether based on Canadian or U.S. dollars). Indeed, in this case CAB and ATC/ATB regulation had very similar effects. Once more the evidence indicates that CAB-type regulation results in higher fares.

Evidence from military airlift

Prior to 1960, the Military Air Transport Service (now the Military Airlift Command) contracted for planeload movements of passengers and cargo on a competitive bid basis open to any carrier meeting the safety and operational standards established by the Federal Aviation Agency (now the Federal Aviation Administration). These carriers included the CAB-certificated airlines (trunk, international, local service, territorial, all-cargo and supplemental) plus the so-called "part 45" carriers composed of operators of large aircraft who contracted their services to a single purchaser and thus did not engage in common carriage. As defined by the Federal Aviation Act of 1958, these part 45 carriers were operating in air commerce rather than air transportation. As a result, they did

⁴¹ 21 Official Airline Guide C-9 to C-18 (North American edition, June 1965).

not have to have CAB-issued certificates of public convenience and necessity and the CAB had no control over their activities so long as they limited their activities to air commerce, including military airlift charters.⁴²

Because part 45 carriers could participate on Military Air Transport Service (MATS) contract operations without having to file tariffs or otherwise comply with CAB regulations, the CAB found it infeasible to control entry by certificated airlines into the military procurement market and to regulate rates. Thus, it gave blanket exemptions to all certificated airlines to participate in this activity at rates through the competitive bidding process.⁴³ This resulted in a monopsonistic market structure with one large buyer (MATS) and many independent sellers. Not surprisingly, military charter rates fell to low levels.

The certificated airlines and the CAB found this situation to be undesirable and in 1958, when the annual growth rate of scheduled passenger traffic abruptly fell from 15 to zero percent,⁴⁴ they prevailed upon President Eisenhower to direct Department of Defense to undertake a study of the military role performed by MATS. This study resulted in a report completed in early 1960 entitled, "The Role of Military Air Transport Service in Peace and War."⁴⁵ This report recommended nine courses of action, including action number five which proposed the procurement of commercial airlift be changed from competitive bidding by all FAA qualified carriers to the use of only CAB-certificated airlines thereby excluding part 45 carriers) under tariff rates or through negotiated contracts.⁴⁶ The courses of action were approved by the President on February 9, 1960,⁴⁷ and the DOD, the Air Force and MATS moved to implement action number five during the following months. Interim procurement procedures consistent with action number five were adopted for airlift contracts for the three-month period starting October 1, 1960.⁴⁸

The DOD's exclusion of part 45 carriers gave the CAB substantial power over military airlift procurement and the Board was quick to implement its new power. On June 24, 1960, the CAB Chairman advised the DOD that blanket exemptions would no longer be issued to certificated airlines allowing them to participate in military contracts. Instead, only individual exemptions would be given to each airline whose contract complied with CAB policies.⁴⁹ Thus, between August 1959 (when the last competitive-bid contracts were signed for service from October 1, 1959 to September 30, 1960) and mid-1960, entry into military airlift operations was abruptly closed to all except those CAB-regulated airlines complying with CAB policies. The effects on contract rates of this fundamental change soon became apparent.

On August 5, 1960, the CAB Chairman advised the DOD that exemptions would not be granted to CAB-regulated carriers if round-trip contract rates were less than 2.9 cents per passenger-mile on a year round basis "[f]or plane load traffic in transatlantic and transpacific operations equivalent to economy type service. . . ."⁵⁰ Since only passenger contracts were planned at that time, this single rate was sufficient. There followed considerable discussion and correspondence between the DOD and CAB concerning rates, and it was not until February 10, 1961, that final rates were established for the remaining categories of international traffic—to become effective no later than May 1, 1961. These initial CAB-authorized rates are summarized in table 7 and compared with the successful competitive-bid rates of August 4, 1959—the last nonregulated rates utilized by MATS.

⁴² See, 101(3), (4), (10), (20), (21), (32), and (33), 72 Stat 737. Also, 72 Stat 754, 72 Stat 758, and 72 Stat 760.

⁴³ Whitney Gilliland, CAB Chairman, letter to Thomas S. Gates, Jr., Secretary of Defense (June 24, 1960).

⁴⁴ CAB, *supra*, note 1, at 24.

⁴⁵ DOD, *The Role of Military Air Transport Service in Peace and War*, February 1960.

⁴⁶ *Id.* at 5-6.

⁴⁷ Robert H. Charles, Assistant Secretary of the Air Force, Address before the Aero Club of Washington, March 26, 1968.

⁴⁸ MATS, *History of the Implementation of Course of Action No. 5: The Role of MATS in Peace and War*, Jan. 1, 1960-June 30, 1961 173-76, March 1962.

⁴⁹ Whitney Gilliland, *supra*, note 43.

⁵⁰ Whitney Gilliland, CAB Chairman, letter to Thomas S. Gates, Jr., Secretary of Defense (August 5, 1960).

TABLE 7.—COMPARISON OF COMPETITIVE-BID RATES WITH CAB-AUTHORIZED RATES,
CATEGORY B, INTERNATIONAL OPERATIONS
AUG. 4, 1959 VS. FEB. 10, 1961

Service and area	Rates		CAB-authorized percent greater than competitive-bid
	Competitive-bid Aug. 4, 1959	CAB-authorized Feb. 10, 1961	
Round-trip passenger:			
Atlantic.....	2.08 cents per pax-mile ¹	2.9 cents per pax-mile.....	39.4
Pacific.....	1.89 ¹	2.9 ²	53.4
One-way passenger:			
Atlantic.....		4.2 cents per pax-mile ³	
Pacific.....		4.2 ^{2,3}	
Round-trip cargo:			
Atlantic.....		13.75 cents per ton-mile ³	
Pacific.....		13.75 ^{2,3}	
One-way cargo:			
Atlantic.....	21.89 cents per ton-mile ¹	22.5 cents per ton-mile ³	2.8
Pacific.....	21.35 ¹	22.5 ^{2,3}	5.4
Round-trip convertible: ⁴			
Atlantic:			
Passenger.....	1.70 cents per pax-mile ¹	2.9 cents per pax-mile.....	70.6
Cargo.....	15.11 cents per ton-mile ¹	16.5 cents per ton-mile ³	9.2
Pacific:			
Passenger.....	2.24	2.9 ²	29.5
Cargo.....	16.54	16.5 ^{2,3}	—, 5

¹ Calculated on a weighted average of mileages and traffic for multiple origins and destinations as specified in the invitation for bid.

² Rates applied to Central Pacific mileages even though flights might actually be operated via North Pacific routings which were approximately 1,000 miles shorter.

³ By letter dated Dec. 5, 1960, the CAB set the following rates to be a basis, effective Mar. 1, 1961, for issuing military charter exemptions:

	Cents per pax-mile
One-way passenger.....	5.2
Round-trip cargo.....	14.5
One-way cargo.....	27.5
Convertible cargo.....	19.0

On Feb. 10, 1961, these rates were superseded by those specified in the table to be effective no later than May 1, 1961.

⁴ Passengers carried one way and cargo the other on a round-trip flight.

Sources: Alan S. Boyd, CAB Chairman, letter to P. B. Taylor, Assistant Secretary of the Air Force (Feb. 10, 1961). Whitney Gilliland, CAB Chairman, letters to Thomas S. Gates, Secretary of Defense (Aug. 5, 12, 1960, and Dec. 5, 1960). MAC, CAB-approved mileage as of Oct. 20, 1967 (n.d.) MATS, Invitation for Bids 11-626-59-11 and 11-626-59-12 (July 8, 1959), and Abstract of bids for these IFBs (Aug. 1, 1959).

Again, the now familiar pattern emerges. The CAB-regulated rates for round-trip passenger service were 39 and 53 percent higher than the earlier nonregulated rates for such service, while the regulated rates for passenger legs of convertible flights were 30 and 71 percent higher than the nonregulated rates. At the same time, however, the differences in cargo rates were small or nonexistent. One possible reason for this could have been that about four times the ton-miles of cargo were moved in fiscal year 1962 than in fiscal year 1960.⁶¹ Thus, a relatively low traffic volume in fiscal year 1960, divided between both the Atlantic and Pacific, could have resulted in high average costs and thus high competitive-bid rates. Another reason, of course, could have been that MATS and DOD were able to convince the CAB to adopt relatively low cargo rates. The fact that the CAB originally set the one-way cargo rate at 27.5 cents per ton-mile (about 28 percent higher than the competitive-bid rates) lends credence to that possibility.⁶² But,

⁶¹ In fiscal year 1960, cargo accounted for about \$12.5 million (21.3 percent) of category B passenger and cargo revenues totaling \$58.7 million. In fiscal year 1962, cargo comprised \$55.4 million (48.5 percent) of the \$114.2 million total. Since cargo rates were about the same in these two periods, changes in cargo revenues approximate changes in ton-miles of traffic. (MATS, Historical Background of MATS' Commercial Airlift Operations, fiscal years 1960-64 12, 14 (n.d.).)

⁶² Whitney Gilliland, CAB Chairman, letter to Thomas S. Gates, Secretary of Defense (Dec. 5, 1960).

then, both these and other reasons may be applicable.

It is only proper to point out that the CAB lowered its approved rates starting in 1962 and continuing to 1967-68, before inflationary pressures reversed the trend. Round-trip passenger rates, for example, fell to 1.75 cents per passenger-mile for standard jets and 1.66 cents per passenger-mile for stretched jets.⁵³ With some adjustments for the relatively low inflation of that 8-year period, it can be seen that these rates are significantly lower than the competitive-bid rates of 1959. It should also be recognized, however, that these rates were achieved with unusually high traffic flows over extremely long-hauls to Vietnam and other points in the Pacific, and that jet aircraft have experienced substantially lower operating costs than the piston aircraft that provided most contract services prior to the early 1960's. With regards to this latter point, it should also be noted that CAB-approved rates for round-trip passenger service on piston aircraft have never fallen below 2.55 cents per passenger-mile.⁵⁴

Summary

It is remarkable how consistent the evidence from these four cases has been. The large amount of cross-sectional evidence from the California experience is supported by similar evidence from Texas and Canada, as well as by time-series evidence from the most recent years in California, from Canada, and from military airlift procurement. Where entry has been possible and airlines have been able to introduce new or lower fares without regulatory constraint, airline fares have been low. Where regulation has served to close entry and fares have been controlled, fares have been much higher. Indeed, in most cases regulated fares have been 50 percent or more above nonregulated fares, and differences of over 100 percent have been common.

These consistently large fare differences are not explained by factors such as whether, airport congestion, traffic density, and so forth. Of course, cold and snow for 5 months or so each year increase the resources required for ground handling; and fog, snow and rain delay flights at various times, as does airport congestion. These factors all increase costs somewhat, but not by 50 to 100 percent over costs in nonregulated city-pairs which also experience weather and congestion problems. However, should weather and airport congestion influence costs appreciably in particular interstate city-pairs, and if CAB-authorized fares are supposed to be cost based, why aren't CAB-authorized fares lower for city-pairs where weather is generally good and airports are free of congestion? The fact is that these cost differences are relatively small and thus it is infeasible to adjust the present rigid fare structure to reflect them.

Traffic density is certainly a relevant factor in average costs per passenger-mile and thus fares. This was reflected in the higher fares charged by the intra-state carriers in minor California city-pairs as opposed to the major city-pairs. But beyond a certain threshold level of, say, 100,000 true O&D passengers per year, differences in costs per passenger-mile are small.⁵⁵ Here again, it should be noted that the CAB makes no allowances for traffic density in its basic fare formula.

In the new cost-based coach-fare formula to be implemented on April 29, 1975, the CAB has established a terminal charge of \$13.85 and various line-haul charges starting at 7.79 cents per passenger-mile for the first 500 miles.⁵⁶ Implicit in this "cost-based" formula is the belief that it costs the average CAB-regulated airline \$13.85 merely to attract a passenger, process his reservation and issue a ticket, enplane him, takeoff and then immediately land at the same or an adjacent airport, and then deplane the passenger. All this regardless of whether the airport is large, small, congested, has bad weather, or whatever. In sharp contrast PSA will do all this plus fly a passenger 159 miles (Fresno-San Francisco) for \$12.73, that is, for \$1.12 less than the CAB's terminal charge.⁵⁷ Similarly, in Texas, South-

⁵³ CAB, *supra*, note 1, at 597-99.

⁵⁴ *Id.* The current round-trip passenger rate for jet aircraft is 2.848 cents per passenger-mile. CAB press release 75-15 (Jan. 17, 1975).

⁵⁵ The threshold traffic level for a city-pair depends on many related factors such as distance, aircraft size required to operate efficiently over that distance, existence of alternative transportation services, the number of other flights serving each airport in the city-pair, the amount of complementary connecting traffic, and so on. 100,000 true O&D passengers per year would yield an average of 274 per day which, alone, would provide a 60-percent load factor for four one-way flights provided with 115-seat aircraft. In 1972, the 100th largest city-pair was New York-Norfolk with 186,000 true O&D passengers (appendix B).

⁵⁶ CAB order 74-12-109 (Dec. 27, 1974).

⁵⁷ PUC decisions 83814 (Dec. 10, 1973), 83918 (Dec. 30, 1974) and 83939 (Dec. 30, 1974).

west Airlines will provide terminal services and then fly a weekend or night-coach passenger from 192 to 253 miles for \$13.89 (\$15.00 including tax), almost identical to the alleged cost of a CAB-regulated airline's brief "sightseeing" flight. There are indeed fundamental differences between CAB-regulated airlines and the successful intrastate carriers; and these differences stem from regulation which serves to close entry, provide a mechanism through which agreements can be reached regarding fares and other matters, and facilitate the low-cost (to the airlines) enforcement of such agreements.

CAB REGULATION HAS DECREASED AIRLINE EFFICIENCY

If the fares and rates of the certified airlines have been increased so much by CAB regulation, why haven't these airlines made consistently large profits? Of course, at various times since 1938, most of the trunk carriers have enjoyed substantial profits and a few of them, such as Delta, Northwest and Western, have had quite good and relatively consistent profit records.⁵⁸ On the whole, however, the profits of the entire regulated industry have been less than spectacular and certainly lower than would be expected from the higher fares resulting from regulation.

The fundamental reason for the surprisingly poor profit performance of the certificated airlines is that, while increasing airline prices, CAB regulation has also greatly increased airline costs. Three of the major sources of these higher costs appear to be: 1) imperfections in CAB regulation which promote intense service-quality (rather than price) rivalry among the airlines; 2) regulatory entry restrictions which require each of the relatively few certificated airlines to provide a diversity of services instead of being able to specialize in an operationally homogeneous service pattern; and 3) the assistance that entry restrictions give monopolistic or oligopolistic airline suppliers in capturing larger portions of the airlines' gains by increasing the prices the airlines must pay for their inputs (especially labor). These three factors—carrier rivalry, decreased specialization, and increased input prices—will be examined below.

Carrier rivalry

While the CAB has full discretionary power over entry and exit, under the Federal Aviation Act of 1958 (as well as the earlier 1938 act) it has had only limited direct power over the quality of service provided by the airlines.⁵⁹ In addition, it has been slow to influence service quality through indirect means such as promoting capacity agreements and conditioning its approval of fares on modifications of service quality.⁶⁰ Thus, CAB regulation has been asymmetric or "imperfect," with complete control in some areas and little control in other areas.

The effects of this asymmetric regulation have been amplified by the Board's failure to allocate predetermined shares of industry revenues and profits to each carrier. Specifically, it has authorized two or more airlines to operate over every major interstate route and between every major city-pair without assigning traffic shares in each city-pair. Therefore, great rivalry has developed between the certificated carriers as they seek to retain or increase their traffic shares.⁶¹ Since CAB regulation requires cooperation and agreement in setting prices, this rivalry has long been channeled toward the area of service quality. Operationally, this has meant that each carrier in a multi-carrier city-pair has endeavored to operate more frequent flights with the fastest, most modern and comfortable aircraft, while providing elaborate in-flight services and superior ground services. The following analysis indicates some of the effects that such service-quality rivalry can have on the costs of regulated airlines.

An airline's most important physical asset is its aircraft and related equipment. As of June 30, 1974, flight equipment accounted for over 84 percent of the nondepreciated value of the total operating property and equipment of all CAB-certificated route air carriers.⁶² Obviously, if CAB-induced service-quality rivalry

⁵⁸ CAB, *supra*, note 1, at 411.

⁵⁹ William A. Jordan, *supra*, note 1, at 2-4.

⁶⁰ William A. Jordan, *Airline Capacity Agreements: Correcting a Regulatory Imperfection*, 39 *Journal of Air Law and Commerce* 193-205 (spring 1973).

⁶¹ In addition to the effects of multi-carrier authorizations on service-quality rivalry, there is no indication that the CAB has made route awards to the carrier(s) able to provide the optimal level and quality of service at the lowest marginal cost. Unless low-cost carriers are authorized to provide new services, the total and average costs of airline operations are increased over minimum attainable levels.

⁶² CAB, *Air Carrier Financial Statistics* 53 (June 1974).

results in excessive numbers of aircraft being purchased and then being underutilized, the costs of regulated airline operations will be increased. Evidence on this point can be obtained by comparing the aircraft utilization by the CAB-regulated trunk carriers with that of the California intrastate carriers between 1949 and 1965. The California carriers could, of course, undertake rivalry both by reducing fares and by increasing service quality, while the regulated trunk carriers were largely constrained to service-quality rivalry. Not surprisingly, the record of this period demonstrates that price rivalry was indeed very important within California in sharp contrast to the emphasis on service-quality rivalry by the CAB-regulated airlines.⁶³

The following four measures can be used to determine the overall intensity with which aircraft are utilized:

1. The average number of revenue hours per day that each aircraft is operated (a measure of airframe utilization).
2. The number of seats installed in each aircraft type for a given class of service (indicating the extent to which the aircraft's interior is utilized).
3. The average passenger load factor (which measures the degree to which the installed seats are utilized).
4. The total number of years each aircraft is operated (measuring the length of time this resource is utilized, as well as indicating the flow of resources required to maintain some given stock of aircraft over time).

It happens that the successful California intrastate carriers operated their aircraft about the same number of hours per day as the trunk carriers (and somewhat more than the local service carriers), so there is little difference in efficiency in this respect, unless detailed adjustments are made to compensate for the intrastate carriers' shorter stage lengths.⁶⁴ Significant differences did exist, however, in the number of seats installed per aircraft, in passenger load factors, and in aircraft life.

Two factors are relevant with regard to numbers of seats installed. First, no intrastate carrier operated first-class service from 1949 to 1965 and, therefore, never provided the low-density seating associated with that high-quality service. Second, when comparing identical aircraft types in all-coach configurations, one finds that the intrastate carriers generally managed to install more seats. Usually the differences were in the order of 5 to 10 percent, but there was one case of a 24 percent increase and a few others with differences of only 1, 2 or 3 percent.⁶⁵ Combined, these two factors have resulted in the intrastate carriers utilizing their aircraft appreciably more than the CAB-regulated airlines, simply by putting more seats in each aircraft.

Even with more seats per aircraft, the California intrastate carriers usually managed to fill an appreciably larger percentage of them and thus have higher coach load factors than the certificated airlines. The exceptions all occurred between 1949 and 1953 when the trunk carriers' coach service was very limited and was mainly provided in long-haul city-pairs while, the intrastate carriers operated only in short-haul city-pairs and were experiencing their initial period of extensive entry and exit (with failing carriers having low-load factors). For that five-year period the trunk carriers' average coach load factor was 73.9 percent compared with 69.8 percent for the intrastate carriers. In every subsequent year, however, the California intrastate carriers' annual average load factor exceeded the coach load factor of the trunk carriers by amounts ranging from 1.0 percentage point in 1954 to 17.9 percentage points in 1963. From 1955 through 1964, the annual average load factor for all intrastate carriers combined never fell below 70 percent and it reached a high of 80.6 percent in 1957. Their 12-year weighted average load factor was 71.2 percent compared with only 59.1 percent for the trunk carriers' coach operation.⁶⁶ Some might argue that these differences resulted from the high traffic densities in the three major California city pairs. But a detailed comparison of the scheduling practices of the two carrier groups in those city pairs demonstrates that the successful intrastate carriers' higher load factors were due to management decisions. Specifically, the intrastate carriers' adjusted their schedules to conform more closely with traffic fluctuations than did the trunk carriers.⁶⁷

⁶³ William A. Jordan, *supra*, note 1, at 34-72.

⁶⁴ *Id.* at 197-99.

⁶⁵ *Id.* at 199-201.

⁶⁶ *Id.* at 200-3.

⁶⁷ *Id.* at 203-9.

Finally, during much of this period the California intrastate carriers mainly operated older, obsolescent aircraft that they purchased from the trunk carriers or from governments surplus stocks. Thus, they served to extend the productive lives of these aircraft, thereby increasing their utilization and economic efficiency. This increased efficiency was reflected in the low prices the intrastate carriers paid for their aircraft which, in turn, served to lower their costs. Had the CAB-regulated airlines been allowed to adopt prices lower than those authorized by the CAB, they too could have used such aircraft in low-fare service, but so long as price rivalry was prevented by regulation it was desirable for the trunk carriers to concentrate on high-quality service and thus retire their aircraft relatively early.⁶⁸

The above experience is what happened with piston-powered aircraft through the 1950s and into the early 1960s. The turbine-powered aircraft innovation was different in that these aircraft provided a happy combination of lower operating costs and superior service quality. This indicates that such aircraft would have been adopted quite early by all airlines regardless of regulation. Not surprisingly, PSA inaugurated turbine-powered Electra service less than eleven months after the first trunk carrier, and it adopted the medium-range Boeing 727-100 fifteen months after that aircraft first flew in scheduled service.⁶⁹ It was those aircraft that provided somewhat higher service quality at higher costs (such as the DC-7, the L-1649) that were fathered by CAB-regulation and which would probably not have been developed without such regulation.

The implications of these differences in aircraft utilization can be illustrated by the following example. The trunk carriers' 1973 system load factor was 52.4 percent and, with the operational adjustments related to the fuel crisis, it rose to about 56 percent in 1974.⁷⁰ Also, the service life of a turbojet aircraft is commonly thought to be around 14 years. Now, the California experience indicates 70 percent load factors are feasible without regulation and that aircraft with low operating costs would have longer lives without regulation than with regulation. A 70-percent load factor is 25 percent higher than the 56-percent load factor of 1974 (and 34 percent above the 52.4-percent load factor in 1973), and applying a similar 25-percent extension to a 14-year aircraft service life would bring it to 17.5 years. Increasing the average load factor by 25 percent means that the trunk carriers' present traffic volume could be carried by 80 percent of their existing fleet, that is, by about \$9.8 billion worth of aircraft rather than the \$12.25 billion (undepreciated value) in existence as of June 30, 1974.⁷¹ 17.5 years, the annual replacement rate would be in the order of \$560 million (\$9.8 billion ÷ 17.5) rather than the \$875 million rate required to replace the current fleet every 14 years (\$12.25 billion ÷ 14). This would be a saving of roughly \$315 million per year, or about \$1.90 per passenger enplanement.⁷²

The above calculations are quite rough and ignore the fact that increased seat density without regulation would result in further reductions in the fleet size required to carry existing traffic. Furthermore, while important, aircraft are just one item of airline costs. A 25-percent increase in load factor also implies a 20-percent decrease in the number of flights which means fewer flight personnel, less fuel consumption, lower maintenance costs, smaller landing fees, and so forth. Clearly the cost differences would be large. One can begin to see how emphasizing service-quality rivalry increases the costs of the CAB-regulated airlines. One can also begin to see why the successful intrastate carriers have been able to survive and profit under fares much lower than those authorized by the CAB.

Decreased specialization

When relatively unregulated, the intrastate carriers have been characterized by operational simplicity and homogeneity. Generally speaking, each carrier has operated only one aircraft type at any point in time (except for brief transitional periods), offered only one class of service (coach), and operated between city-pairs that provided traffic flows and stage lengths compatible with the chosen aircraft type. Some of the carriers, such as Mercer Enterprises and Holiday Airlines, have served recreational communities or activities where low

⁶⁸ *Id.* at 209-10.

⁶⁹ *Id.* at 40-44, 55-56. Also, CAB, *supra*, note 1, at 552.

⁷⁰ CAB, Air Carrier Traffic Statistics 1 (Dec. 1973), and 2 (Sept. 1974).

⁷¹ CAB, *supra*, note 62, at 55.

Furthermore, if this smaller number (value) of aircraft were replaced every
⁷² Total system trunk revenue passenger enplanements for the year ended September 30, 1974, was 166,730,000. CAB, *supra*, note 70, at 2.

traffic densities exist. Others, like PSA and Southwest, have operated between large cities having high traffic densities. To this day, PSA, the largest of the intrastate carriers, serves only 11 airports while, prior to 1965, it never served more than five airports at one time. Similarly, Air California now serves eight airports, Holiday seven, and Southwest three.⁷³ Overall, the intrastate carriers have customarily been quite small. Only one (PSA) has ever operated more than a dozen aircraft at one time (three to six aircraft has been the usual fleet size), and they have consistently had very simple fare structures and procedures. All this has allowed each employee to become intimately familiar with his work. Pilots, for example, spend large parts of their professional lives flying only one aircraft type between just a few airports. In the same way, the work of employees engaged in maintenance, engineering, scheduling, reservations, accounting, etc., are all simplified, and managers can become intimately acquainted with the carrier's traffic and operational features.

Contrast this to the trunk carriers at the end of 1972. The smallest number of U.S. and foreign cities served by any carrier was 37 (Western) while the largest number was 89 (United). The number of certificated route miles ranged from 10,821 (Western) to 38,968 (TWA), and the trunk fleets ranged from 60 aircraft (Continental) to 388 (United) with each carrier operating several different types of aircraft.⁷⁴ Even the local service carriers were geographically large and diverse in comparison with the intrastate carriers. In December 1972 each of them between 50 and 95 cities connected by 3,660 to 8,295 certificated route miles, and each operated 33 to 133 aircraft.⁷⁵ Even brandnew Air New England has been authorized to serve 14 cities located throughout New England.⁷⁶ The operational problems and complexities faced by these certificated airlines are much greater than those of the intrastate carriers, and the associated decrease in specialization translates into less output per employee.

Rough indications of the effects of specialization on airline productivity may be obtained by comparing the 1965 average annual output per employee of the total trunk carriers as a group and of Western Air Lines (one of the more productive of these carriers) with that of PSA. 1965 was, of course, the last year of relatively unregulated operations in California, and it was also the year that PSA introduced jet aircraft and thus operated a fleet whose composition was very similar to that of the trunk carriers.⁷⁷ Two of the productivity measures will be available seat-miles (ASM) per employee and revenue passenger-miles (RPM) per employee. It happens that these two measures are biased against the certificated carriers because they provided relatively more cargo service than PSA which served to inflate their number of employees without increasing their ASM and RPM figures. Therefore, to provide balance, operating revenues per employee will also be given with the recognition that this measure is biased against PSA since its lower fares required more physical output per dollar of revenue. The data for Western Air Lines are particularly useful, both because they indicate the range of trunk carrier productivity and because a substantial portion of its total operations were entirely or partially within California which may yield increased comparability with PSA's data. The comparisons are given in table 8.

TABLE 8.—AVERAGE ANNUAL OUTPUT PER EMPLOYEE (PSA COMPARED WITH TOTAL TRUNK CARRIERS AND WESTERN AIR LINES), 1965

Output measure	Output per employee			PSA percent greater than	
	Total trunks	Western	PSA	Total trunks	Western
Available seat-miles.....	603,000	769,000	1,270,000	111	65
Revenue pas-miles.....	333,000	431,000	804,000	141	87
Operating revenues.....	\$22,200	\$26,100	\$32,500	46	25

Source: William A. Jordan, *Airline Regulations in America*, 215, 217, 219 (1970).

⁷³ PUC, Present and Proposed Route Structures of California Certificated Air Carriers and Routes Operated by CAB Certificated Air Carriers as of July 1, 1974, 1A, 10, 15A (n.d.). Also, Southwest Airlines, Third Quarter Report (nine months ended Sept. 30, 1974).

⁷⁴ CAB, *supra*, note 1, at 1-2.

⁷⁵ *Id.*

⁷⁶ CAB press release 75-18 (Jan. 23, 1975).

⁷⁷ 1965 was neither the best nor the worst year for PSA's productivity relative to the certificated airlines. While its jet operations increased total output, between April and August its total number of employees increased from 575 to 740 persons. William A. Jordan, *supra*, note 1, at 339-40.

Again, large differences can be seen to have existed between the performances of the certificated trunk carriers and PSA. After taking account of the biases in the measures, it appears that in 1965 PSA's output per employee was about 100 percent larger than the average for all trunk carriers, and almost 60 percent larger than Western's output per employee. Of course, the certificated airlines provided higher quality service (including first-class service), operated many conveniently located ticket offices, were engaged in regulatory activities, and so forth, all of which would decrease employee output as measured in table 8. At the same time, their much larger and diverse route structures added complexity to their operations. Combined, these factors decreased employee productivity in terms of fundamental output measures. Here is yet another reason why the successful intrastate carriers were able to survive while charging appreciably lower fares than the CAB-regulated airlines—their specialized operations simply yielded more output per employee.

Increased input prices

The earlier analysis of carrier rivalry has shown that the regulation-promoted emphasis on service-quality rivalry has served both to increase the total stock of aircraft operated by the airlines and to decrease their utilization by installing fewer seats, operating at lower load factors, and retiring them at relatively early ages. Since the end of World War II there have been three major reequipment cycles—starting in 1946 with pressurized aircraft, then turbine-powered aircraft in 1958 and, finally, wide-bodied aircraft in 1970—each with several phases in which improved versions of the basic innovation were developed. Given the emphasis on service-quality rivalry, it has been essential that each CAB-regulated airline operate the most modern equipment, and thus each new aircraft type has been adopted quickly and extensively by the regulated airlines with a concurrent replacement of existing aircraft.⁷⁸

Clearly, the above situation has resulted in greatly increased demand for new aircraft and this has benefited the aircraft and engine manufacturers over what they would have experienced without CAB regulation. At the same time, the increased variety of aircraft produced has resulted in higher costs of production. Economic theory (and common sense) predicts that increased demand for a good combined with increased costs of producing that good will result in higher equilibrium prices regardless of whether the market structure is competitive, oligopolistic or monopolistic. Thus, there is every theoretical reason to expect aircraft prices have been increased as a result of CAB-regulation. Actually, it is difficult to imagine how the 1938 and 1958 acts could have been written and implemented to promote greater demand for the products of the aircraft and engine manufacturers at the expense of the airlines and, through them, those consumers of airline services who value lower prices relatively more than very high service-quality.⁷⁹

By prohibiting the entry of new airlines, CAB regulation has also greatly benefited airline employees. The employees of CAB-regulated airlines know that they can obtain higher wages or more costly work rules without fear of having some new or existing airline enter and destroy their company and their jobs through price rivalry supported by lower labor costs. They also know that should their company happen to fail it would be merged with another CAB-regulated airline whereupon the CAB's labor-protective policies would result in their obtaining similar jobs in the merged company or receiving substantial termination payments.⁸⁰ Furthermore, where a union provides the only source of labor of a certain category for most of the industry (pilots, for example), or where labor can otherwise act industry-wide, they know that the airlines can transfer a large portion of above-market wage demands to airline customers simply by agreeing on price increases with their fellow carriers through CAB procedures. The overall result of these factors appears to be ever higher labor costs for the regulated airlines.

Evidence pertaining to these factors is fragmentary, but significant. In recent studies of the trunk and local service carriers, the CAB found that total labor costs in 1973 comprised 45.7 percent of total operating expenses for the trunk carriers and 48.9 percent for the local service carriers.⁸¹ In contrast, in informa-

⁷⁸ William A. Jordan, *supra*, note 1, at 36-44. Also, William A. Jordan, exhibit DJ-RT-1, 13-21 (testimony submitted in the American-Western merger case, CAB docket 22916, June 25, 1971).

⁷⁹ William A. Jordan, *supra*, note 1, at 230-33.

⁸⁰ CAB order 72-4-31/32 (March 28, 1972), at 18-33.

⁸¹ CAB, *Productivity and Cost of Employment, System Trunks, Calendar Years 1972 and 73*, 8 (Sept. 1973). Also, CAB press release 75-13 (Jan. 16, 1975).

tion submitted to this subcommittee, Air California advises that for the eleven months ended November 30, 1974, wages and executive salaries totaled just 26.1 percent of its total costs.⁸² Similarly, Southwest reports these labor categories accounted for only 28.37 percent of its total costs for the 10-month period ended October 30, 1974.⁸³

Factors other than regulation probably influenced the above percentages. For example, it appears that the two intrastate carriers included interest expenses in their total costs while these are not part of the CAB-defined operating expenses. However, adding interest expenses to the certificated carriers' operating expenses merely brings their labor costs to 44.3 percent (trunk) and 47.2 percent (local service) of the expanded total.⁸⁴ Another possible cause of these differences in labor's share of total costs is that both Air California and Southwest are young companies with relatively low seniority costs. Actually, the percentage differences are too large to be accounted for by such adjustments. Instead, they are consistent with the prior evidence that the employees of small, specialized airlines are more productive than the employees of CAB-regulated airlines, and with the hypothesis that regulation allows employees of certificated airlines to obtain higher wages for all categories of workers.

The only California intrastate carrier to be unionized prior to 1965 was California Central—the largest and most important of the California airlines from January 1949 until it was adjudged bankrupt in February 1955. Both its pilots and mechanics were unionized, and a 37-day strike by the mechanics occurred in July and early August 1953. It appears that this strike and the subsequent wage increase reduced California Central's ability to operate effectively against its low-fare rivals (including PSA). In January 1954, just six months after the strike, it initiated the bankruptcy proceeding that eventually resulted in its demise.⁸⁵

It also appears relevant that PSA was never unionized until early 1971 when its station personnel voted to be represented by the Teamsters Union.⁸⁶ While initially voting against union representation, PSA's mechanics eventually also joined the Teamsters and in November 1973 carried out the first strike ever instigated against PSA.⁸⁷ While far from conclusive, it should be noted that these actions followed the PUC's effective closure of entry into the major California city-pairs during the period ending in late 1969.

The above analyses pertain to the airlines' two most important types of inputs—aircraft and labor. Similar analyses could be made regarding suppliers of other inputs such as airports, petroleum products, supplies used in in-flight services, etc. Enough has been said, however, to indicate how regulation can act to increase the prices and quantities of inputs utilized by the CAB-regulated airlines in providing their high-quality services.

Summary

CAB regulation has served to decrease airline efficiency and, thus, increase airline costs. It has done so by closing entry and then by providing an environment which encourages the certificated airlines to undertake extensive service-quality rivalry among themselves for larger shares of traffic, revenues and, hopefully, profits. As a result, the CAB-regulated airlines purchase excessive numbers of very costly aircraft and then under-utilize them; they operate over large and diverse route structures which decrease specialization and increase operational complexities, and which are associated with significantly lower employee productivity; and, finally, they pay higher prices for the larger quantities of inputs that are required for their high-quality services.

SAFETY

All U.S. airlines must comply with the safety and operational regulations of the Federal Aviation Administration. Thus, the question is, given FAA regulation, does the economic regulation of the CAB significantly influence airline safety? The evidence on this point is unclear.

⁸² R. W. Clifford, president, Air California, Letter to Senator Edward M. Kennedy, attachment (Dec. 19, 1974).

⁸³ M. Lamar Muse, president, Southwest Airlines, Letter to Senator Edward M. Kennedy, 20 (Jan. 3, 1975).

⁸⁴ CAB, Air Carrier Financial Statistics, 1, 4 (Dec. 1973).

⁸⁵ William A. Jordan, *supra*, note 1, at 183–84.

⁸⁶ PSA, First Quarter Report (ending Mar. 31, 1971).

⁸⁷ The Wall Street Journal, 16 (Midwest edition, Nov. 19, 1973).

The California intrastate carriers have experienced two fatal accidents. On December 7, 1949, a California Arrow DC-3 crashed near Vallejo, California, killing six passengers (including the wife and son of the airline's owner) and three crew members.⁸⁸ Then, 14 years later on March 1, 1964, a Constellation L-049 of Paradise Airlines crashed near Lake Tahoe, killing 81 passengers and four crew members.⁸⁹ These two crashes resulted in a passenger fatality rate of 2.67 passengers per 100 million revenue passenger-miles for the California intrastate carriers from 1949 through 1965, compared with a rate of only 0.45 fatalities per 100 million revenue passenger-miles for the trunk carriers and a rate of 0.92 for the local service carriers for these same years.⁹⁰ Proponents of CAB regulation could well use these results to conclude that CAB regulation has indeed increased airline safety.

In opposition to this position, proponents of decreased CAB regulation could point out that, because of the relatively small number of revenue passenger-miles provided by the intrastate carriers, the Paradise crash had an inordinate and statistically nonpredictive effect on the data;⁹¹ that the short stage lengths of intrastate operations increase the probability of crashes due to the high exposure resulting from frequent takeoffs and landings (note the local service carriers' higher fatality rate); and that there have been no other crashes of intrastate carriers (either in California or Texas) so that the 1949-74 fatality rate would be very much lower than the 1949-65 rate.

It happened that both California Arrow and Paradise terminated intrastate operations shortly after their crashes. California Arrow transferred its remaining aircraft to irregular interstate service, while the FAA suspended and then refused to renew Paradise's operating certificate. Thus, in each case a fatal accident imposed substantial economic penalties on the intrastate carrier. No CAB-regulated airline has borne similar penalties following a crash. In fact, the CAB's economic regulation may even prevent the full application of sanctions otherwise applicable under federal safety regulations or available to consumers. With respect to service termination, if a carrier possesses a CAB certificate of public convenience and necessity, does the FAA really have the power to suspend its operating certificate following one or more fatal accidents, or are the FAA's corrective powers actually limited to fines, increased surveillance of operations, etc.? In terms of consumer choice, since carriers with low passenger fatality rates are prohibited by the CAB from quickly extending operations over the routes of a carrier having a relatively high fatality rate, do air travelers have as many opportunities under CAB regulation to express their concern over a carrier's poor safety record by using other carriers having superior records?

Regardless of one's opinion on this matter, the complete absence of fatal accidents by PSA during 16 years of unregulated operations (and continued now under increased regulation), and by California Central during six years of operations, does indicate that economic regulation is not a necessary condition for airline safety. At the same time, the varying experiences of individual certificated airlines show that such regulation is not a sufficient condition for superior safety performance.

CONCLUSION

There is strong evidence that CAB regulation has reduced entry into the airline industry, resulted in exit occurring only through acquisition and merger, and has caused fares to be much higher than they would be without regulation. One would think this would have been very beneficial to the regulated airlines and that they would have enjoyed consistently high profits. Unfortunately, the recurrent crises and low profits of most regulated airlines demonstrate that such has not been the case, and the reason for the airlines' problems can also be attributed to the CAB's regulatory policies and procedures. By motivating airlines to purchase excessive numbers of aircraft and then underutilize them, by requiring them to operate diverse services thereby reducing specialization and lowering employee productivity, and by providing an environment where larger amounts of inputs are purchased at higher prices, CAB regulation has increased

⁸⁸ CAB, *Résumé of U.S. Carrier Accidents* (calendar year 1950), 23 (Aug. 1951). Also, *The Los Angeles Times*, 1 (Dec. 9, 1949).

⁸⁹ CAB, *Aircraft Accident Report*, 1-2 (SA-378, file 1-002, July 12, 1965, processed).

⁹⁰ William A. Jordan, *supra*, note 1, at 49-53.

⁹¹ Paradise accounted for less than one-half of 1 percent of all revenue passenger-miles carried by the California intrastate carriers from 1949 to 1965, but accounted for 93 percent of the total passenger fatalities. *Id.* at 51.

airline costs as much as it has increased fares. Indeed, regulated fares 50 to 100 percent higher than nonregulated fares have been accompanied by employee productivity 40 to 50 percent lower than the most successful of the nonregulated intrastate carriers. This, of course, indicates a fundamental fallacy in the Board's policy of basing fares on regulated airline costs.

Rather than the airlines themselves (or their stockholders) being the prime beneficiaries of CAB regulation, the major beneficiaries appear to have been airline employees, aircraft and engine manufacturers (and their stockholders and employees), and suppliers of all the other inputs utilized by the regulated airlines. Passengers who value high-quality airline service relatively more than other goods and passengers who do not pay for their air travel, have also benefited from the high-quality service flowing from CAB regulation. Passengers who, in contrast, prefer low-price and somewhat lower-quality service have been harmed, either by having to pay higher prices for airline services or by using less preferred means of travel, or by not traveling at all. Also harmed through having to pay higher prices or higher taxes are the many consumers of goods and services produced by firms or government agencies utilizing air transportation in their production and/or distribution activities.

Clearly, the present type of airline operation flowing from CAB-regulation is very inefficient, including substantial inefficiencies in fuel consumption. Assuming economic efficiency in a world of scarcity is desirable, this inefficiency may be rectified in one of at least two ways. The first way is to eliminate the imperfections of current CAB regulation by placing every aspect of airline operations under the direct control of the CAB. The aim would be to increase efficiency by eliminating service-quality rivalry. It would be a pure cartel attempting to maximize airline profits, or other goals, in a world of uncertainty. Of course, some individuals would be harmed by this alternative. The elimination of service-quality rivalry would result in decreased demand for personnel, aircraft and other inputs, and would reduce service-quality with little or no reduction in general fares. This alternative may be attractive to many airline stockholders and managers, but it has drawbacks over the long-run (say, 10 to 20 years). First of all, those employees still working for the airlines (and other airline suppliers) would endeavor to capture ever larger shares of the higher profits and, given their own monopoly powers, would be successful in so doing. Second, higher fares and decreased service quality would provide great motivation and many opportunities for innovators to develop new substitute services to attract the airlines' traffic from them. An historical example of such an occurrence is the way the motor carriers have been able to divert large amounts of traffic from the railroads. Third, the administration of this cartel would doubtless be cumbersome and slow to adjust to changes. So long as airline demand continues to grow, this first alternative will remain viable. It will, however, be very vulnerable to innovations or to a secular decline in demand.

The second way to eliminate airline inefficiency stemming from CAB regulation is to abolish entry control and to allow any airline to lower its fares without regulatory restraint, that is, to adopt the essentially nonregulated environment that existed within California prior to 1965. This too would be undesirable to the aircraft and engine manufacturers (unless they quickly develop aircraft having appreciably lower operating costs) because large numbers of excess aircraft would have to be absorbed into a revamped industry emphasizing low-cost, high-load factor operations. High-paid and/or relatively unproductive employees would find themselves unemployed as their companies went bankrupt or radically decreased their sizes of operation, but many of these same employees would find themselves working for the large numbers of new or expanded airlines that would purchase existing aircraft and inaugurate service. Airline passengers preferring low-prices would find themselves better off as would the consumers of goods utilizing air transportation as a productive input. The period of adjustment would probably be in the order of ten years (the effective lives of some of our older jet aircraft), but upon its conclusion the U.S. would have an efficient, low-price air transportation system better able to adjust to economic fluctuations and operating in a way that would make the emergence of substitute services more difficult. The short-run "medicine" would taste terrible, but the long-run prognosis would be good.

Congress has to choose between the status quo or variations of one of these two alternatives. The choice will not be easy because many individuals will be harmed and many others benefited regardless of the choice.

APPENDIX A

ONE-WAY COACH PRICES ¹ FOR DALLAS-HOUSTON AND DALLAS-SAN ANTONIO SERVICE
SOUTHWEST AIRLINES, BRANIFF AIRWAYS, AND TEXAS INTERNATIONAL AIRLINES
JUNE 1971-DECEMBER 1974

Effective date	One-way coach price							
	Dallas-Houston (222 miles)				Dallas-San Antonio (253 miles)			
	Day		Night		Day		Night	
	SW	BN TT	SW	BN TT	SW	BN	SW	BN
1971:								
June 1		\$27				\$28		
June 18	\$20	² 20			\$20	² 20		
1972:								
May (na)	20	20	³ \$10		20	20	⁴ \$10	
July 9	⁵ 26	20	10		⁵ 26	20	10	
July 17/21	26	26	10	⁶ 10.00	26	26	10	
Oct. 30	⁷ 26/13	26	⁸ 13		⁷ 26/13	26	⁸ 13	
1973:								
Jan. 5	26/13	⁹ 27	13		26/13	⁹ 28	13	
Jan. 22	26/13	27	13		13	28	13	
Feb. 1	13	¹⁰ 27/13	13		13	28	13	
Apr. 2	⁷ 26/13	¹² 27/13	13	¹³ 13.00	13	28	13	
May 21	26/13	27/13	13	13.00	13	¹⁴ 28/13	13	
Sept. 24	26/13	¹⁶ 27/13	13	13.00	13	28/13	13	
Dec. 1	¹⁶ 28/15	¹⁷ 28/15	⁹ 15	¹⁵ 14.99	15	¹⁹ 29/15	⁸ 15	
1974:								
Apr. 16	28/15	²⁰ 30/15	15	14.99	15	²¹ 31/15	15	
Oct. 1	²² 25/15	30	²³ 15		²² 25/15	31	²³ 15	
Nov. 15	25/15	31	15		25/15	32	15	

¹ Jet coach/economy/1-class fare plus 8 percent Federal transportation tax.

² This and the subsequent prices in this column to Oct. 30, 1972, were available to intrastate passengers only. Interstate passengers continued to pay the price specified above. Effective Oct. 30, the highest price listed in each entry applied to interstate as well as intrastate passengers.

³ Applicable to 1 northbound and 1 southbound flight departing after 9 p.m. on weekdays and Sundays.

⁴ Applicable to 1 northbound flight departing after 9 p.m. on Fridays and 1 southbound flight departing after 9 p.m. on weekdays and Sundays.

⁵ \$50 round-trip price. \$225 commuter club card introduced providing unlimited transportation for a 30-day period.

⁶ Available to intrastate passengers on a daily Braniff weekday flight departing Dallas at 7:30 p.m. and returning from Hobby Airport in Houston at 9 p.m.

⁷ \$26 on weekday flights prior to 8 p.m. \$13 on Saturday and Sunday flights with a \$25 round-trip price.

⁸ Applicable to flights departing on or after 8 p.m.

⁹ The CAB authorized a 2.7 percent across-the-board fare increase effective Sept. 5, 1972, and this price was a delayed response to that action. Texas International adopted this price for intrastate passengers on Jan. 11, 1973.

¹⁰ Braniff: to/from Houston Intercontinental Airport \$27, to/from Hobby Airport \$13 with \$25 round-trip price. Texas International: to/from Houston Intercontinental \$13 effective Feb. 20, 1973.

¹¹ Footnote deleted.

¹² Braniff: weekdays \$27, Saturday-Sunday to/from Houston Intercontinental \$27, Saturday-Sunday to/from Hobby Airport \$13. Texas International: \$20.

¹³ Available to intrastate passengers on one Braniff flight departing Hobby Airport at 9 p.m. daily.

¹⁴ \$28 for intrastate passengers utilizing approximately 10 daily flights. \$13 for intrastate passengers utilizing another 5 or so designated flights.

¹⁵ Braniff: weekdays \$27, Saturday-Sunday to/from Houston Intercontinental \$27, Saturday-Sunday to/from Hobby Airport \$13. Texas International: weekdays \$27, Saturday-Sunday through Sept. 30, \$20; effective Oct. 1, \$27 on all days.

¹⁶ \$28 on weekday flights prior to 8 p.m. \$15 on Saturday and Sunday flights.

¹⁷ Braniff: weekdays \$28, Saturday-Sunday to/from Houston Intercontinental \$28, Saturday-Sunday to/from Hobby Airport \$14.99. Texas International: \$28.

¹⁸ Available to intrastate passengers on Braniff flights departing on or after 7 p.m. to/from Hobby Airport.

¹⁹ \$29 for intrastate passengers utilizing approximately 10 daily flights. \$14.99 for intrastate passengers utilizing another 5 or so designated flights. Effective Jan. 13, 1974: \$29 for all flights to/from Dallas-Fort Worth Regional Airport, \$15 for all flights to/from Love Field.

²⁰ Braniff: weekdays \$30, Saturday-Sunday to/from Houston Intercontinental \$30, Saturday-Sunday to/from Hobby Airport \$14.99. Texas International: \$30.

²¹ \$31 for all flights to/from Dallas-Fort Worth Regional Airport, \$15 for approximately 3 daily flights to/from Dallas Love Field. Braniff terminated all service at Love Field effective Sept. 1, 1974.

²² \$25 on weekday flights prior to 7 p.m. \$15 on Saturday and Sunday flights.

²³ Applicable to flights departing on or after 7 p.m.

Source: Braniff Airways, letter from T. P. Robertson (Jan. 29, 1975); Southwest Airlines annual report (1971, 1972, and 1973). Also quarterly report (3 months ended Mar. 31, 1972-74, June 30, 1972-73, and Sept. 30, 1971-73). Texas International Airlines, letter from V. R. Shelley (July 16, 1974). Official Airline Guide (North American edition, Apr. 15, June 1, Sept. 14, Oct. 15, Nov. 1, and Dec. 1, 1972; Apr. 1, May 15, June 15, July 15, and Nov. 15, 1973; Jan. 15, Feb. 1, May 1, Aug. 1, Oct. 15, and Dec. 1, 1974). Aviation Week and Space Technology 43 (Apr. 30, 1973), and 37 (June 4, 1973). The Houston Post 5/A (Jan. 31, 1973).

APPENDIX B

TOP 100 ORIGIN-DESTINATION CITY-PAIRS¹ IN ORDER OF PASSENGER RANK, CAB-CERTIFICATED AND CALIFORNIA/TEXAS INTRASTATE AIRLINES (SCHEDULED DOMESTIC SERVICE, 1972)

Rank and city-pair ¹	Number of airport pairs	Intercity mileage ²	Number of origin-desti- nation passengers
1 Boston-New York/Newark	3	191	2,077,000
2 Los Angeles-San Francisco	1	355	1,984,000
3 Miami-New York/Newark	3	1,092	1,930,000
4 Chicago-New York/Newark	6	721	1,785,000
5 New York/Newark-Washington	6	215	1,738,000
6 Los Angeles-New York/Newark	3	2,453	1,092,000
7 Fort Lauderdale-New York/Newark	3	1,071	871,000
8 Los Angeles-San Diego	1	101	855,000
9 Detroit/Ann Arbor-New York/Newark	3	489	782,000
10 New York/Newark-San Francisco	3	2,574	779,000
11 Los Angeles-Oakland	1	354	713,000
12 Los Angeles-San Jose	1	324	666,000
13 Chicago-Los Angeles	2	1,740	653,000
14 Cleveland-New York/Newark	3	410	623,000
15 New York/Newark-Pittsburgh	3	329	619,000
16 Los Angeles-Sacramento	1	379	588,000
17 Dallas/Fort Worth-Houston	4	222	580,000
18 Las Vegas-Los Angeles	1	227	575,000
19 Boston-Washington	2	406	570,000
20 Chicago-Detroit/Ann Arbor	2	238	565,000
21 Atlanta-New York/Newark	3	755	549,000
22 Buffalo/Niagara Falls-New York/Newark	3	289	517,000
23 Chicago-Minneapolis/St. Paul	2	344	476,000
24 Chicago-Washington	4	591	458,000
25 Honolulu-Los Angeles	1	2,556	454,000
26 Burbank-San Francisco	1	342	454,000
27 Chicago-Miami	2	1,188	436,000
28 Chicago-St. Louis	2	256	429,000
29 Hilo-Honolulu	1	216	424,000
30 New York/Newark-Rochester	3	252	401,000
31 Honolulu-Lihue	1	102	397,000
32 New York/Newark-Tampa	3	1,003	396,000
33 San Diego-San Francisco	1	456	394,000
34 Boston-Philadelphia	1	274	393,000
35 Chicago-Philadelphia	2	675	376,000
36 Boston-Chicago	2	860	376,000
37 Chicago-San Francisco	2	1,853	374,000
38 Los Angeles-Phoenix	1	358	373,000
39 Honolulu-Kahului	1	100	355,000
40 Chicago-Cleveland	2	312	353,000
41 Denver-Los Angeles	1	839	348,000
42 Dallas/Fort Worth-New York/Newark	6	1,363	347,000
43 San Francisco-Seattle	1	671	340,000
44 New York/Newark-St. Louis	3	882	339,000
45 Los Angeles-Seattle	1	959	327,000
46 Boston-Miami	1	1,258	326,000
47 New York/Newark-Syracuse	3	197	319,000
48 Miami-Philadelphia	1	1,017	319,000
49 Philadelphia-Pittsburgh	1	273	312,000
50 Los Angeles-Washington	2	2,288	309,000
51 Chicago-Denver	2	907	305,000
52 Houston-New York/Newark	6	1,416	300,000
53 Chicago-Kansas City	2	407	294,000
54 Honolulu-San Francisco	1	2,399	294,000
55 Dallas/Fort Worth-Los Angeles	2	1,246	292,000
56 Burbank-San Jose	1	311	286,000
57 New York/Newark-West Palm Beach	3	1,030	283,000
58 San Francisco-Santa Ana	1	389	281,000
59 Denver-New York/Newark	3	1,627	277,000
60 New York/Newark-Orlando	3	941	270,000
61 Minneapolis/St. Paul-New York/Newark	3	1,016	269,000
62 Cincinnati-New York/Newark	3	579	267,000
63 Miami-Washington	2	920	265,000
64 Chicago-Pittsburgh	2	404	263,000
65 Atlanta-Miami	1	595	256,000
66 San Francisco-Washington	2	2,430	255,000
67 Boston-Los Angeles	1	2,600	252,000
68 Columbus-New York/Newark	3	472	250,000
69 Chicago-Dallas/Fort Worth	4	790	244,000
70 Ontario-San Francisco	1	377	244,000
71 Dallas/Fort Worth-San Antonio	2	253	240,000
72 Baltimore-New York/Newark	3	179	238,000
73 Detroit/Ann Arbor-Los Angeles	1	1,988	235,000
74 Miami-Tampa	1	133	231,000

See footnotes at end of table.

APPENDIX B

TOP 100 ORIGIN-DESTINATION CITY-PAIRS¹ IN ORDER OF PASSENGER RANK, CAB-CERTIFICATED AND CALIFORNIA/TEXAS INTRASTATE AIRLINES (SCHEDULED DOMESTIC SERVICE, 1972)—Continued

Rank and City-pair ¹	Number of airport pairs	Intercity mileage ²	Number of origin-destination passengers
75 Houston-New Orleans.....	2	303	231,000
76 Detroit/Ann Arbor-Miami.....	1	1,151	229,000
77 Atlanta-Chicago.....	2	597	229,000
78 San Jose-Santa Ana.....	1	³ 358	228,000
79 Burbank-Oakland.....	1	³ 341	227,000
80 Atlanta-Washington.....	2	540	226,000
81 Chicago-Tampa.....	2	1,906	225,000
82 Chicago-Las Vegas.....	2	1,521	223,000
83 New Orleans-New York/Newark.....	3	1,177	223,000
84 Charlotte-New York/Newark.....	3	537	222,000
85 Portland-San Francisco.....	1	540	208,000
86 Indianapolis-New York/Newark.....	3	654	208,000
87 Denver-San Francisco.....	1	956	206,000
88 Burbank-San Diego.....	1	³ 115	200,000
89 Chicago-Fort Lauderdale.....	2	1,172	200,000
90 Detroit/Ann Arbor-Washington.....	2	391	200,000
91 Chicago-Cincinnati.....	2	254	199,000
92 Los Angeles-Philadelphia.....	1	2,396	198,000
93 Chicago-Phoenix.....	2	1,445	196,000
94 Houston-Los Angeles.....	2	1,372	195,000
95 Portland-Seattle.....	1	132	195,000
96 Long Beach-San Francisco.....	1	³ 370	193,000
97 Los Angeles-Minneapolis/St. Paul.....	1	1,526	193,000
98 Boston-San Francisco.....	1	2,703	191,000
99 New York/Newark-Providence.....	3	150	189,000
100 ⁴ New York/Newark-Norfolk.....	3	291	186,000

¹ As defined in the CAB origin and destination survey. In some cases the CAB combines two or more airports Origin-Destination serving one city. In those cases, as shown above, each city-pair includes two or more airport pairs.

² As specified by the CAB. In some cases intercity mileages differ slightly from inter-airport mileages.

³ Estimated using inter-airport mileages.

⁴ The following larger intrastate city-pairs are not among the top 100 city-pairs: Oakland-San Diego=178,000; Oakland-Santa Ana=158,000; Sacramento-San Francisco=152,000; San Diego-San Jose=139,000; Sacramento-Santa Ana=92,000; Ontario-San Jose=91,000; Houston-San Antonio=89,000; Ontario-Sacramento=79,000; Burbank-Sacramento=71,000; Oakland-Ontario=65,000.

Sources: CAB, "Handbook of Airline Statistics," 433 (1973 ed.).

PUC, "Form 1511 report" number 33 (12 mos. ended Dec. 31, 1971 and 1972), and for SANSFO/OAK/SJC; number 34 (12 mos. ended June 30, 1972 and 1973).

PREPARED STATEMENT OF DR. JOHN R. SUMMERFIELD

My name is John R. Summerfield. I am president of Summerfield Associates, a transportation research and consulting company.

I welcome an opportunity to discuss with this subcommittee a topic that has interested and confused politicians, academicians and businessmen alike: namely, differences between interstate and intrastate airline costs and, hence, fare levels. I plan to demonstrate the low-cost operation of the California intrastate air carriers is a disappearing phenomenon. Remnants of the apparent low cost are attributable to isolation from the integrated U.S. air transportation system, not to lack of regulation. If PSA were part of the integrated interstate airline system of the United States, the airline would have reported a loss of about \$8½ million 1974 instead of the profit of \$1.6 million reported earlier this week (assuming 48 percent Federal income tax). Despite intra-California fare increases that have exceeded those approved by the Civil Aeronautics Board, PSA's profit have been declining and just this month the airline has begun furloughing employees in an attempt to offset losses in the last half of 1974.

My testimony is based on a study I conducted to determine in what specific ways the cost structures of the two California intrastate air carriers—PSA and Air California—differ from cost structures of trunk and local service air carriers.

Regulation is not the issue. Fares of Air California and PSA are regulated by the California Public Utility Commission (PUC) instead of by the CAB. Passengers purchasing tickets within California for travel wholly within the State pay the PUC fare. Passengers purchasing tickets outside California pay the CAB fare. The record of recent years clearly demonstrates that the PUC is as sensitive to carriers' rising costs as is the CAB; in the Los Angeles-San Francisco market, for example, the PUC has granted fare increases amounting to 30.7 per-

cent since 1969, compared with CAB authorized increases of only 26.7 percent in the same period. The PUC also controls route authority within California.

If not regulation, what factors do account for the apparent lower cost structure of an intrastate carrier? To answer this question, it is useful to examine the operation of the two California intrastate air carriers. Because they are intrastate carriers, they cannot sell tickets to passengers traveling outside California. That fact alone means that their reservations clerks do not need to become involved in routing a passenger to remote points, in computing fares on trips connecting to other carriers, or in any of the other information a trunk or local service carrier's reservations clerks must become involved in. Because of these differences the average reservation call to an interstate carrier, even with massive assistance from a computer, lasts about 3 minutes, compared with less than 1 minute for a reservation call to an intrastate carrier. PSA has estimated that its reservation service costs 77 cents per passenger. This year PSA will carry about 6½ million passengers. If it had to handle typical reservation loads of an interstate carrier (3 minutes vs. 1 minute per call), its costs would probably be at least \$1.50 per passenger higher, or an extra \$9¼ million a year. In 1974, PSA's profit was \$1.6 million.

Ticketing economies of the PSA system exist for the same reasons. No multiple stop tickets with complex routing and joint fares are written. Each transaction is a point-to-point trip for which the passenger receives a cash register receipt that serves as his ticket. Although many trunk and local service airline tickets are now printed by computer, the multi-stop tickets, the complex ones that take so long when you are standing in line behind a traveller with a long itinerary, are handwritten and fares are hand-computed. If PSA had to sell interline tickets, its average cost per ticket written would increase substantially because of increased complexity. No published data exist to enable me to compute the size of the increase. It could well cost an extra million dollars a year in added administrative costs.

Trunk and local service airlines must provide extensive training for both reservations clerks and ticket agents. Because the public interest requires that the air transportation system be integrated and interrelated, trunk and local service employees must be able to route a traveller to any designation in the world and be able to find the correct fare. This is no simple task. To impart and update this knowledge and skill, trunk and local service carriers spend substantial sums for training. By comparison, intrastate carriers' training costs for these categories of employees are very much lower.

Revenue accounting is a third function in which PSA saves money because it does not sell interline tickets. Trunk and local service carriers employ large staffs of revenue accountants, often aided by computers, to determine, among other things, how much their airline owes other airlines for interline sales and how much other airlines owe them. By comparison, PSA needs only to add the cash register receipt tickets it collects. Here again, published data do not enable me to determine how much more it would cost PSA if its revenue accounting office had to deal with interline accounts. It would probably run well over \$200,000 a year.

Because it doesn't sell interline space, therefore, PSA saves about \$11 million a year compared with its interstate counterpart airlines.

It cost local service airlines 7.2 cents per passenger to file and publish tariffs, schedules, and timetables in 1973. The intrastate carriers, with their simpler route structures and tariff structures, were able to accomplish these functions within California at about half that cost, or 3.5 cents per passenger. Faced with the complexity of interstate operations, PSA would have to spend an added 3.7 cents per passenger, or nearly \$250,000 extra a year, to file and publish its tariffs, schedules and timetables.

A number of other differences between the cost structure of intrastate carrier and that of a trunk or local service carrier can be attributed to the fact that intrastate carriers serve smaller geographical regions. Since the longest PSA flight is less than 2 hours and nearly all are less than 1 hour, PSA serves no food. It sells cocktails and serves complimentary soft drinks. Profits on the sale of cocktails cover the cost of soft drinks. By contrast, local service carriers spend over 50 cents per passenger on food. If PSA operated a route structure comparable to that of a typical local service carrier, its food service would cost over \$3 million.

Lack of food service provides other benefits for PSA and Air California. Because there are no galleys in their aircraft, there is room for more seats and, therefore, an opportunity to increase revenues per flight at very little extra operating cost. PSA's Boeing 727-200 aircraft have 158 seats; and interstate competitor has 124 seats in the same aircraft model. That 27 percent extra revenue on PSA's busy flights in the heavily-traveled San Francisco-Los Angeles market, for example, can contribute as much as \$650,000 per year in added revenue on PSA's busy flights in the heavily-traveled San Francisco-Los Angeles way between the two cities (plus eighteen L-1011 weekly flights each way). Even if the extra 727-200 seats are sold only 10 percent of the time, the extra capacity resulting from elimination of food service adds more than \$650,000 a year to PSA's revenues on the San Francisco-Los Angeles run alone. Although United can refrain from serving food on these short runs, it uses its aircraft also on longer runs that require food service. Hence, it must forego the revenue that galley space might otherwise provide.

Another attribute of the geographically limited route structure of PSA and Air California is that very few crews spend their nights in hotels away from home base. Because flights are short, scheduling makes it possible for most crews to return to home base each night. For safety reasons the Federal Aviation Administration (FAA) requires that crews rest after long-crew duty-time. Accordingly carriers with long route segments pay hotel and meal costs for a large number of crews each night. Much more costly, however, is the provision in typical union contracts that flight crews receive flight pay for a portion of hours on the ground away from home base. Since the FAA and union contracts both specify a maximum number of duty hours, crew productivity is lower for the long-haul carrier. That is, because of these so-called duty rigs and trip rigs in union contracts and more crews away from home base, trunk and local service airline pilots fly fewer hours within the same maximum duty hour limits. Cost per hour of actual flying, therefore, is much higher for the trunk and local service carriers than for the intrastate carriers. Trunk carriers typically pay pilots about 20 hours of flight pay a month for nonflying activities, thus reducing their actual flying time to about 50-55 hours a month. If PSA were to lose as much flying time per pilot because of duty and trip rigs of the trunk and local service carriers, its annual flight crew costs would be about \$3 million higher.

Differences in flight crew requirements for the Boeing 737-200 account for yet another saving for PSA and Air California. Trunk carriers' contracts with the Air Line Pilots Association require a three-man flight crew despite the fact that the FAA certificated the aircraft for a two-man flight crew. PSA and Air California use two-man flights crews. If PSA required the third man in the cockpit of its four Boeing 737's it would incur added costs of about \$450,000 per year. For Air California's seven Boeing 737's, the added costs would amount to about \$800,000 per year.

The commuter nature of the intra-California air carriers results in considerably less baggage per flight than trunks and local-service airlines carry. It has been observed, for example, that interstate competitors carry more than twice as much baggage per 727 flight as does PSA. For the same speed of baggage handling per flight, therefore, PSA needs fewer baggage handlers. PSA also carries little freight. Neither baggage nor freight are transferred from PSA to another airline. Reported data indicate that traffic servicing costs, which encompass passenger and baggage handling at airports, are about twice as high per passenger on both trunk and local service airlines as on the California intrastate airlines. Excluding the economies of ticketing, discussed earlier, and allowing for PSA's greater flexibility in crossing union jurisdictions, it is estimated that, if PSA operated a route structure more nearly like those of either trunk or local service airlines, PSA's traffic servicing costs would increase as much as \$2 million a year.

PSA's low cost operation is rapidly vanishing. Its earlier non-union status is gone. Unions have brought pay scales in line with those of the rest of the industry. A few years ago, PSA operated only in the very busy high density markets of San Diego, three Los Angeles airports, three San Francisco Bay area airports, and the State capital at Sacramento. Recently PSA began service at the less active cities of Long Beach, Stockton and Fresno. At these airports, lower traffic means fewer flights and more idle time for ground crews between flights, hence higher unit costs. So far, these low density, high cost stations represent only a small part of PSA's operations. If, like trunk and local-service carriers, PSA begins to serve more small communities, its cost will increase even more.

PSA's costs have been rising: Its profits fell from a high of \$6.9 million in 1972 to \$600,000 in 1973. Fare increases, however, produced earnings of \$2.7 million for the first half of 1974, followed by a loss of \$1.1 million for the last half of the year. Intrastate fares increased again 2 weeks ago.

The following quotation from a September 1974, PSA application to the PUC for a fare increase indicates how PSA now feels about fares lower than those set by the CAB: "In the context of competition between interstate and intrastate carriers, adequate consideration by the Commission of the ratemaking principles set forth by the CAB will contribute to the policy of alleviating unjust fare discrimination and preferential fares inherent in a dual regulatory system. . . . Furthermore, the methodology . . . (used in the CAB's Domestic Passenger Fare Investigation) will assist in assuring that California intrastate carriers do not experience disproportionately low or confiscatory rates of return in relation to interstate carriers with which they compete." That statement does not sound like a confident low cost carrier.

Late last month PSA announced indefinite furloughs for 100 stewardesses and about 50 ramp personnel to become effective February 1. The carrier also stated that it was talking with representatives of the pilots about possible furloughs.

In summary, Mr. Chairman, the low-cost operation of the California intrastate air carriers is a thing of the past except for that portion of the cost structure attributable to isolation from the integrated U.S. air transportation system.

I have identified and quantified the following factors in the operating environment of the California intrastate air carriers that differ from factors in the operating environment of interstate airlines.

Factor:	Annual cost difference [In millions]
Reservations -----	\$9.75
Ticketing -----	1.0
Revenue accounting -----	0.2
Tariffs, schedules, timetables -----	.25
Food service -----	3.0
Additional seats in aircraft -----	.65
Pilot duty and flight rigs -----	3.0
Extra crew member in 737 -----	.45
Traffic servicing -----	2.0
Total identified -----	20.30

If PSA operated interstate routes comparable to those of its interstate competitors, its pre-tax profits would be diminished by about \$20 million per year and it would be seeking an even larger fare increase than is now pending.

SUMMERFIELD ASSOCIATES, INC.
February 28, 1975.

MR. STEPHEN BREYER, *Special Counsel*,
Subcommittee on Administrative Practice and Procedure,
U.S. Senate,
Washington, D.C.

DEAR MR. BREYER: I am responding to your invitation at the conclusion of the February 14 hearings in Boston to send comments and further information that might assist the subcommittee in its understanding of the impact of air carrier regulation. Attached are two short papers. Attachment no. 1 addresses several issues embodied in Dr. Jordan's testimony. Attachment no. 2 addresses the 10 points you raised in Boston, i.e., the 10 reasons advanced to explain the apparent lower costs of PSA vis-a-vis trunk and local-service carriers.

If I can be of further assistance, please do not hesitate to ask.

Sincerely yours,

JOHN R. SUMMERFIELD.

Attachment 1.

RESPONSE TO TESTIMONY OF DR. WILLIAM A. JORDAN

This memorandum challenges conclusions that Dr. Jordan stated in his testimony before the subcommittee. Most misleading is his allegation that regulation causes high labor costs, whereas in reality labor costs are high or not as a result of employee seniority, unionization, and productivity. Productivity, in turn, de-

pends in part on union contract clauses and in part of characteristics of the airline as outlined in my testimony (Is it geographically limited? Does it sell interline space?).

Other points I wish to make are that free entry has resulted in high bankruptcy rates and instability; that 70 percent average load factors are possible only in very special markets; and that longer aircraft life is not determined by the presence or absence of regulation. The following paragraphs discuss each of these 4 points.

1. Costs of free entry

On pages 5 and 6 of his testimony, Dr. Jordan attempts to demonstrate that, absent regulation, 100 to 200 airlines would have existed during the period covered by his earlier study. In support of this hypothesis, Dr. Jordan points out that "two hundred and one commuter air carriers operated . . . during fiscal year 1973, and that 126 of these small airlines operated for the entire year." With that high a mortality rate (37 percent in one year), free entry would result in a chaotic industry. Travellers would not know from day-to-day which carrier would still be in business. Dr. Jordan draws the wrong conclusion from the fact that no airline bought the defunct commuters. Mergers have helped trunk and local service carriers provide a continuity of service to the public. Experience of the largely unregulated sector of the industry has shown that instability may well be a very substantial cost of deregulation.

2. Load factors

On pages 33 and 34 of his testimony, Dr. Jordan alleges that 70 percent passenger load factors are feasible because California intrastate airlines operated at or above 70 percent for many years. It is important to understand, however, that average load factors of 70 percent are feasible only under special conditions. The intra-California market is considerably less seasonal than are most airline markets. In most markets, when time-of-day peaking is superimposed on day-of-week and seasonal peaking, 80 to 100 percent load factor flights are not enough to compensate for the many flights with load factors in the 20 to 50 percent bracket. Scheduling alone cannot make up for the peaking characteristics of the market. Many costs are fixed; hence grounding of aircraft in off-peak periods often results in revenue losses that exceed those costs that are saved by not flying. My experience both at Western Airlines and at Pan Am has convinced me that, on a system basis, airlines with extensive route systems cannot economically operate at 70 percent system load factors and still provide adequate service to the public.

3. Aircraft life

On pages 33 and 34, Dr. Jordan argues that regulation causes airlines to retire aircraft too early. Quantitative evidence on this point is lacking. In the California market, however, it is instructive to recall that, after PSA's introduction of the Lockheed Electra in the early 1960's, Western tried to compete in the Los Angeles-San Francisco market using DC-6 aircraft at a fare of \$11.43 (several dollars less than PSA's fare). The experiment failed to attract enough passengers to the older aircraft, despite the lower fare.

A further point on failure to adopt new aircraft types is the cost of airport and airways congestion. Were it not for the (possibly premature) introduction of wide bodied aircraft, the high delay rates of 1970 would still plague airlines and their customers. Largely because of these larger aircraft and accompanying reduced schedules, delay rates at JFK dropped from 42.6 per thousand operations in 1970 to 18.1 in 1971; at Los Angeles International Airport, from 8.0 to 0.7. (These rates are those recorded by FAA and measure only delays of 30 minutes or more at the departure or arrival traffic control center. Hence absolute numbers are deceptively low as measures of delay.)

Finally, new aircraft types are introduced because they offer economies of operation and other improvements, such as better fuel economy and reduced noise levels. An air transport system that discourages modernization of the fleet would result in aggravated pollution, especially in the vicinity of airports.

4. Labor costs

On pages 40 to 42 of his testimony, Dr. Jordan attempts to show that regulation causes high labor costs. To address this issue, it is helpful to consider both wage rates and productivity. Wage scales depend on management philosophy and employee bargaining strength, tempered occasionally by consideration of

the company's financial situation. New airlines may not be unionized at first; but if they survive the initial years, most become unionized and wage scales within the industry tend to become identical. I have determined, for example, that PSA and Western now pay pilots at approximately the same hourly rate for the same seniority. PSA's wage costs, however, are lower because, as a younger airline, average seniority is lower. In the case of pilots, however, the main difference in wage costs comes from productivity. As I stated in my written testimony:

"... because of these so-called duty rigs and trip rigs in union contracts and more crews away from home base, trunk and local-service airline pilots fly fewer hours within the same maximum duty hour limits. Cost per hour of actual flying, therefore, is much higher for the trunk and local-service carriers than for the intrastate carriers. Trunk carriers typically pay pilots about 20 hours of flight pay a month for non-flying activities, thus reducing their actual flying time to about 50-55 hours a month."

In that testimony, I also identified many other elements of productivity differences attributable to the nature of an intrastate carrier. Specifically, I identified a 3-to-1 difference in productivity of reservations clerks because intrastate carriers do not handle interline business. Similar productivity differences were established in my testimony for ticketing, revenue accounting, food service, aircraft seating configuration, extra pilots in 737 aircraft, baggage and freight handling, training of reservation and ticketing personnel, and service at low-density airports.

To achieve the low labor costs that Dr. Jordan believes it is possible to achieve, we must envisage a series of new airlines, each of which ceases operation before its employees attain either seniority or union representation. That pattern of instability is unlikely to benefit the traveling public.

In summary, although I have no major quarrel with the data presented by Dr. Jordan, I disagree with many of the conclusions he draws from the data.

Specifically, I conclude that:

1. Free entry and exit would cause major instability in airline service;
2. Seventy per cent load factors are not feasible for the industry as a whole on a year-around basis;
3. Regulation is not a determining factor in aircraft life; and
4. Labor costs are high or low because of airline age, unionization, and route characteristics, not because of regulation or its absence.

[The memorandum referred to in the following attachment is printed on pp. 515-17, below.]

Attachment 2

REASONS ADVANCED BY MR. BREYER TO EXPLAIN APPARENT LOW COST OF PSA OPERATIONS

This memorandum contains comments on 10 reasons for PSA's lower costs, as listed by Mr. Stephen Breyer at the Boston hearings of the Subcommittee on Administrative Practice and Procedure on February 14, 1975.

Questions 1 and 7. *Weather and airport congestion.*—Citing minor differences in flights not completed, Mr. Breyer concluded that neither weather nor airport congestion contributed substantially to cost differences. High completion rates, however, cost more in regions with higher delay rates. At the hearings, American Airlines stated that 50 percent of its flights encountered ground or air traffic delays at LaGuardia compared with 20 percent at Los Angeles and San Francisco. Official delay statistics collected by FAA indicate that only 12.7 flights per thousand suffered delays at LaGuardia in 1974. However, the reported data include only delays of 30 minutes or more at the departure or arrival air traffic control center. If American's experience at LaGuardia is typical, more than 160,000 flights were delayed at LaGuardia in 1974. If average delays were as little as 10 minutes, delays cost airlines about \$25 million in direct operating costs last year at LaGuardia alone. Officially reported delay rates at Los Angeles last year were one-seventh as high as at LaGuardia.

I have sought to reconcile these data with the block-to-block statistics to which Mr. Breyer referred at the Boston hearings. I believe that the discrepancy may be a result of the practice of airlines, following the fuel crisis, of waiting to leave gate positions until cleared for take-off. This practice conceals departure delays in the block-to-block statistics. When these delays exceed 30 minutes, however, they do appear in FAA's delay statistics. American's data presumably consider all ground and air traffic delays regardless of whether engines have been started or not.

Question 2. *Traffic density*.—It was stated that traffic densities between city-pairs did not account for major differences for markets carrying at least 100,000 yearly passengers. Trunk and local service airlines serve many markets of lower density than 100,000 a year. As pointed out on page 5 of my testimony, furthermore, airport costs are very sensitive to volume at the low volume end of the scale. If few flights serve an airport, airline personnel and equipment are underutilized and unit costs are therefore high.

By contrast, at airports like LaGuardia, Washington National and Los Angeles, to name just a few, ground crews and equipment are busy most of the time for 14 to 16 hours a day. PSA only recently added low-utilization stations to its route structure. Its rising unit costs are in part a result of the change.

Question 3. *Seasonality patterns*.—The intra-California markets are more heavily business markets than most other U.S. markets and hence not as subject to vacation peaking. Hour-of-day and day-of-week peaking are not readily measurable from published data. My experience in the California and other markets leads me to the conclusion that the intra-California markets are less peaked than other markets. Hence it is possible to operate at higher average load factors within California. This point is clearly not related to the regulation issue.

Question 4. *Extra interline costs*.—These are the costs covered in the first part of my February 14 testimony. Dr. Jordan challenged my comparison by stating that an intrastate traveller would still make a brief call for reservations even if PSA could accept interline business. He missed the point that the mix of calls would change and would be similar to Western's or United's with more short calls and some long calls. The argument that the added costs would be offset by added revenue also misses the point. I cited the differences only to explain why a self-contained system is cheaper to run. But if the entire air transport system operated that way there would be no system. Interline connections would be virtually impossible and the public would be greatly inconvenienced.

Question 5. *Other costs identified by Dr. Summerfield*.—Actually there are cost differences I did not attempt to quantify that might, if measureable, add up to a considerable amount. My testimony mentioned low-density airports, training for interline traffic handling, and overnight expenses of crews.

Question 6. *Different aircraft*.—No further comments.

Question 7. *Airport congestion*.—See No. 1.

Question 8. *Regulatory costs*.—These are hard to define. CAB form 41 reports do not require separation of regulatory costs. Airlines I have queried do not keep separate records of the costs of dealing with CAB versus PUC or even the total costs of regulatory activities. CAB regulatory proceedings tend to be more protracted, principally because more parties are involved and more issues are raised.

Question 9. *Cross subsidy*.—Profitable routes do subsidize unprofitable routes for most airlines. The chart accompanying Dr. Ehrlich's testimony of February 14 indicates that the CAB expects to continue the practice of long-haul routes subsidizing short-haul routes. In addition, high-density routes subsidize low-density routes, though no formula exists to recognize this fact. My personal experience makes it clear that cross-subsidy is a fact of airline life. If exit were free, I have no doubt that many communities would find themselves without service from trunk or local service air carriers.

A special form of cross-subsidy exists when, for example, American Airlines extends its New York-Los Angeles flight to San Diego. The Los Angeles-San Diego flight may lose money on a fully allocated cost basis, but marginal costs may well be less than marginal revenue. American has a better chance of moving a New York-San Diego passenger on its own long-haul leg if the passenger can continue to his final destination without change of plane. In this case (and there are hundreds like it) the long-haul passenger may be subsidizing the short-haul passenger on the same flight. But the added convenience of a through flight makes this arrangement highly beneficial to the travelling public.

At the Boston hearings, it was stated that DOT claims there is no cross subsidy in the present system. I believe that this is a mistaken impression and that DOT is on record only as opposing cross subsidy. You will no doubt wish to check this point.

Question 10. *Load factor and number of seats*.—My testimony confirms differences in number of seats and provides an explanation for the differences. Load factor differences are not easy to document since PSA has not published load factors for some years. Air California, however, did report a 1974 system average load factor of 70.8 percent. As mentioned in No. 3 above, California markets

are not typical. Peaks and troughs are not as pronounced. In addition, the California intrastate carriers do not operate any routes with very low-load factors. Most trunk and local service airlines still serve cities whose traffic needs were well served by DC-3 aircraft but whose traffic has not grown over the years. Even minimum service to these communities results in very low-load factors with today's aircraft—load factors that intrastate carriers never experience.

Senator KENNEDY. I would next like to welcome Mr. Richard J. O'Melia, Acting Chairman of the Civil Aeronautics Board. Mr. O'Melia has been a member of the CAB staff since 1957. He served as Assistant to the Office of General Counsel, Deputy Director of the Bureau of International Affairs and Director of the Board's Bureau of Enforcement.

Appearing with Mr. O'Melia are Thomas J. Heye, Administrative Assistant to the Chairman; Arthur H. Sims, Acting Deputy Director of the Bureau of Economics; and William B. Caldwell, Jr., Director of the Bureau of Operating Rights.

STATEMENT OF RICHARD J. O'MELIA, ACTING CHAIRMAN, CIVIL AERONAUTICS BOARD, ACCOMPANIED BY THOMAS J. HEYE, ADMINISTRATIVE ASSISTANT TO THE CHAIRMAN; ARTHUR H. SIMMS, ACTING DEPUTY DIRECTOR OF THE BUREAU OF ECONOMICS; AND WILLIAM B. CALDWELL, JR., DIRECTOR OF THE BUREAU OF OPERATING RIGHTS

Mr. O'MELIA. Thank you, Mr. Chairman. I have heard a lot of mention of the CAB sitting in the back of the room, and just being appointed Chairman of the CAB, I certainly welcome these hearings, because if there is a better way to operate the CAB, I certainly welcome it.

I will cut my prepared remarks down to about 2 minutes.

CAB'S NEW FARE FORMULA

To begin with, let me explain briefly the words "basic ratemaking approach." This involves the establishment of fares for a large number of airlines which operate over a competitive and interlining system involving short-haul and long-haul markets, big cities and small communities, markets which have many passengers and markets which have only a few passengers. Airline costs vary from market to market as you have heard this morning and within markets compared to the carrier.

The competitive markets, of course the economics are such that all airlines must operate at the same fare irrespective of their own particular cost. As a result there is no practical way for the Board to tailor fares so as to meet each airline's own revenue requirement and reflect the distinct operational characteristics. Instead, the Board established a uniform fare formula, which means that the fares are based on the revenue requirements of the trunkline industry as a group and fares with comparable mileages are the same. The system isn't perfect, but nonetheless represents what the Board has considered to be a reasonable balance of all the equities.

I direct the subcommittee's attention to my prepared testimony which includes a more detailed discussion of the industrywide ratemaking.

DIFFERENCES BETWEEN INTRASTATE AND INTERSTATE SERVICE

Operations by a large intrastate airline such as PSA or Southwest Airlines involve exactly the opposite considerations. Service by these airlines is performed in markets which have nearly optimum operational characteristics. These intrastate operators serve only a few points, almost all of them large cities, and generally provide commuter-type service in markets which generate a large volume of traffic. As a result, these intrastate operators have less need for different aircraft types to cope with differing traffic densities or stage lengths, and have little problem with respect to positioning of aircraft. On the contrary, they can successfully employ wide-bodied aircraft, which are extremely efficient, they can configure their aircraft for high density operation, and operate at extremely high load factors.

In other words, the intrastate operators can fine tune their operation to the special needs of the new markets they serve, and there is no doubt that they can hold down the costs of operating and as a result offer service at a very attractive fare.

Clearly, PSA has been able to achieve efficiencies in its Los Angeles-San Francisco service which the intrastate Texas airline, Southwest, for example, is unable to match over its routes, and which, in fact, PSA itself cannot duplicate in its other markets.

I would call the subcommittee's attention to the chart attached to my prepared testimony with details of comparisons between interstate operations for a selected month.

CAB POLICY ON FARE COMPETITION

Let me turn, for just a moment, to the question of competitive pricing. A proposal for competitive price often referred to as a flexible fare formula was presented to the Board in the recent passenger fare investigation. I have included with my testimony the Board's rather extensive disposition of that question. I did not participate in the Board's decisions on that issue, but it seems to me the Board was saying that a flexible fare formula just won't work as long as Congress wishes to continue to have a regulated system with limited entry.

Let me make one final observation with respect to a regulatory system. The Congress has given the Board what I think should properly be described as a balanced mandate, a mandate, in other words, to provide good service to the traveler and shipper at a reasonable price and with profits to the airlines such to permit their continued growth and development. The Board's job is always more difficult in times of economic downturn when airlines seek to reduce service to save money or raise fares to cover increased costs. But the traveling public would like to continue the same quality of service and the same fares that prevailed in better economic times.

The current economic circumstances brought about in large part by the unprecedented rise of fuel prices is virtually without parallel in aviation history.

I want to assure this subcommittee that the Board has taken a long hard look at its regulatory responsibility in light of the drastic change in economic conditions.

If you have any questions, Senator, we will try and answer them.

CAB STAFF STUDY OF PSA-TYPE SERVICE

Senator KENNEDY. Are you familiar with the 1965 staff study on PSA? This study concluded that while using low fares PSA attracted the traffic of competitors, reduced their fares, brought down average fares, and expanded total revenue far above what it would have been; and, as I understand, during that time PSA made healthy profits. Are you familiar with that?

Mr. O'MELIA. I am familiar with it, but when I don't know an answer I would like to address it to—

Senator KENNEDY. Given that kind of result, what takes place in the Board when you receive a study like that? What kind of followup is there when you see something that appears to be working effectively? It seems that there was a favorable report submitted.

Mr. O'MELIA. I am not sure what happened to it because I wasn't there, but that was an intrastate study, Senator, which the Board had no regulatory control over the operation of an intrastate air carrier. So I presume it was a study that was given for information for the Board members to look at. What they did with it, I have no knowledge.

Senator KENNEDY. Would you think that it has any lessons for intrastate carriers? Or, is it dismissed out of hand, as something that works well for intrastate but not interstate?

Mr. O'MELIA. As far as I am concerned, if it were brought up to date now, and I am sure these hearings will bring it up to date, and as far as I am personally concerned as one Board member, I am very interested in having that.

Senator KENNEDY. What does that really mean, besides interest? Will you be a little bit more specific?

Mr. O'MELIA. Yes, I will. If the ratemaking system which the Board has evolved over the years has some defects in it based on the cost studies that you are finding here today are what PSA has, certainly the airlines might find a way to cut costs and save fuel and if they can do that the Board as well will certainly benefit by it.

Senator KENNEDY. You do have some influence over these kinds of efficiencies, don't you? You could encourage development of a similar service or give direction to a carrier who wants to duplicate that service from Boston to Washington. You could do that, could you not, if the Board wanted to do it?

Mr. O'MELIA. Yes.

Senator KENNEDY. Then you can do something about it.

Mr. O'MELIA. Oh, yes, the Board can consider any applications.

Senator KENNEDY. Given at least some of these figures, if they hold up, would you consider it if some other group wanted to come in, not one of the major trunk carriers, and wanted to provide this kind of service?

Mr. O'MELIA. Absolutely.

Senator KENNEDY. Would you hold a hearing on that?

Mr. O'MELIA. Yes, sir.

Senator KENNEDY. Would a PSA-type service work along the east coast, do you think?

Mr. O'MELIA. Mr. Caldwell, do you have any thoughts on this question?

Mr. CALDWELL. Well, I think one of the problems is, Senator, if you look at the California situation, particularly since it is older, you have—it isn't a question of regulations versus no regulations. It is really the type of regulation. The California PUC, as I understand their policies, certificate air carriers much like public utilities. You have one light company, you have one air carrier in each of the major markets in California. You do not have competitive intrastate laws. The competition that PSA has is furnished by the CAB certificated carriers as far as the flights go.

I think the occasion for the possibility of duplicating the number of points and the distances the PSA operates are very remote, indeed, to find that type of situation in other areas of the United States. You have, as I think they are representative of one of the two carriers indicated, they are blessed with much better flying weather than we find on the east coast or probably in most other portions of the country except possibly Florida; therefore, they are less apt to spend costly time in the air between their points, and obviously their costs are lower. They are not burdened with providing service. They are not required to have the burden by the PUC of providing service to the less dense city fares in California.

Now, obviously if you could design a system in the United States that had an average density that PSA has in California, then, one, I think its cost structure would be entirely different than what we see out there today and I think the fares would be different than what we see today.

CROSS-SUBSIDY AND SMALL TOWN SERVICE

Senator KENNEDY. I am going to have to leave at half past 12, but I want to give the carriers a chance to present their testimony. I won't be able to finish, but counsel will have additional questions.

As I understand it, DOT has told us there is no cross subsidy. The ATA indicated they are doing a study. Can we find that out?

Mr. SIMMS. Well, I can't speak for the Board, Senator.

Senator KENNEDY. Can one be done? ATA thinks so.

Mr. SIMMS. Well, I think we certainly can do a study. A lot depends upon the time parameter—

Senator KENNEDY. I bet if you did it, it would be a good one.

Mr. SIMMS. A lot depends on the amount of resources we have to go into.

Could I finish my last point?

Senator KENNEDY. Yes, fine.

Mr. SIMMS. That is this. That at the present time the Board subsidized local carriers, ineligible service carriers operate routes given to them for the purpose of enabling them to make profits which can be used to cross-subsidize their eligible services. At the present time, according to the latest figures, the carriers are making excess earnings on profitable segments that amount to something like \$29 million. That compares to the overall subsidy need, computed before that, of something in the areas of \$70-\$80 million. So that there is some hard evidence right there that cross-subsidization does exist, and that it can—and that cross-subsidization is a fact.

Senator KENNEDY. If you could do a study of that, I think it would be extremely helpful.

I would like to make a final point about the differences between intrastate and interstate fares. We have mentioned many things except one, which I think is a very important factor. When you come right down to it, the significant difference is that the consumer is offered a low fare without all the frills. More seats and no food and beverages result in a lower-cost operation; that cost is passed on to the consumer, and it has been welcomed by him. They don't seem to complain that there are no first-class seats, or that they are not getting a variety of services. I can't understand why consumers in other parts of the country aren't entitled at least to that choice.

We can talk about all these other facts, about whether the weather variations result in higher costs, or the time in the air, or density factors.

We find out less-dense areas out in California are making a profit. We find that the kinds of planes the airlines use are just about the same, that neither the time in the air, nor the weather make a great deal of difference. But there is a significant difference in the number of seats, the elimination of first class and all the frills, and it does show up in terms of price to the consumer. The public is not offered that choice in other parts of the country, and the real question is what can be done.

One alternative is to go completely without any regulations. Another is to move toward permitting the development of alternative services.

I appreciate your presence here, and I apologize that we are not able to continue at this time.

If you want to make any comments or responses I will be glad to hear them.

Mr. O'MELIA. I want to say we will be glad to work with your staff.

Senator KENNEDY. Thank you, Mr. Chairman. It is kind of you to be with us this morning.

Commissioner Murphy, I want to thank you very much for coming up in response to these questions.

[The statement of Richard O'Melia follows:]

PREPARED STATEMENT OF RICHARD J. O'MELIA

Senator Kennedy, this is my first appearance before this subcommittee as the Acting Chairman of the Civil Aeronautics Board. The hearings you have convened are exploring a number of facets of cardinal importance to the work of the Board. I am pleased to be here to contribute to the efforts of this subcommittee to conduct an incisive and productive examination of the Board and its processes, and can assure you that we will study with great attention the views expressed in these hearings and the report that your subcommittee will issue as a result of these hearings.

We have been advised by your staff that the topic for this session of the hearings is a comparison of state and Federal regulation of air transport and a comparison of interstate air fares and intrastate air fares. I would like to offer a few preliminary observations of a general nature concerning this topic before entering into a more detailed look at the question of intrastate and interstate fares.

As this subcommittee is aware, I was appointed a member of the Board in November 1973, and was designated by the President as Vice Chairman, and accordingly Acting Chairman, effective at the beginning of last month. As a

result I have not had personal experience of long duration with some of the Board's actions affecting this subject. In particular, I was not a member of the Board at the time the basic decisions were made in the Board's Domestic Passenger Fare Investigation, which have great pertinence to our topic. Nevertheless, I want to try to set forth the problem and issues involved in the most direct manner possible.

Before entering into the question of intrastate and interstate fares, which is the specific subject under discussion, let me mention briefly the authority which Congress has given the Board in the Federal Aviation Act. In that Act, Congress charged the Board with the task of encouraging the development of an economically sound air transportation system designed to meet the needs of the domestic and foreign commerce, of the Postal Service, and of the national defense. However, the Federal Aviation Act does not, by its terms, give the Board comprehensive authority over all air transport regulation. Instead, Congress has left, to use a phrase often quoted, "a residuum of power in the states to make laws governing matters of local concern * * *."

Now, although the Board's authority is limited by statute, its responsibilities and objectives are nonetheless nationwide in scope. The states, on the other hand, have responsibilities and objectives which are much more limited. Therefore, Mr. Chairman, in examining the question of why intrastate fares are lower than interstate fares, we must remember that the regulatory responsibility established for the Board by the Congress involves the nation as a whole, and is not necessarily the same as a state may establish within its own borders. Furthermore, and even more important, I believe that the basic economic characteristics affecting intrastate operations by carriers like PSA or Southwest are quite different from those affecting interstate operations by carriers regulated by the Board. With these general considerations in mind, let me now discuss briefly the pricing considerations with respect to airlines subject to the Board's jurisdiction and then contrast them with pricing considerations affecting the intrastate operators.

Pricing considerations of interstate carriers

To begin with, let me explain briefly the Board's basic ratemaking approach. That approach necessarily involves the establishment of fares for a large number of airlines which operate over a competitive and interlacing route system. That route system comprises short-haul and long-haul markets; big cities and small communities; markets which have many passengers; and markets which have very few passengers. Since the certificated airlines serve basically a linear route system, and often connect more than two points on a single flight, their equipment cannot be tailored to the needs of each individual market on a route. Airline costs also vary from market to market, and within markets from carrier to carrier. In competitive market, of course, the economics are such that all carriers must operate at the same fare irrespective of their own particular costs. As a result, there simply is no practical way for the Board to tailor fares so as to meet each carrier's own revenue requirements and reflect the distinct traffic and operational characteristics of each city-pair market. On the other hand, under the Board's statutory mandate from Congress—particularly section 1002(e) (5)—the Board is required to take into account the need of each carrier for revenue sufficient to operate adequate and efficient air service under what the statutes describes as "honest, economical, and efficient management * * * ." Faced with the problem of how to reconcile the statutory mandate to consider the need of each carrier with the hard fact that fares cannot be regulated on an individual basis, the Board has concluded that an industry-wide approach to ratemaking reflects a reasonably good balance between the needs of all of the airlines on the one hand, and the Board's obligations to insure satisfactory, low-cost air transportation to the nation on the other. As a result, the Board's ratemaking approach is based on the need of the industry as a group, rather than any individual carrier, and is also based on mileage rather than the unique characteristics of particular markets. The system isn't perfect, but nonetheless represents what the Board has considered to be a reasonable balance of all the equities. This general industry-wide approach to ratemaking, I might add, was established by the Board in the General Passenger Fare Investigation in 1960 and was not challenged in the recent Domestic Passenger Fare Investigation in 1970. I am submitting for the subcommittee's information those sections of those two decisions which explain industry-wide ratemaking in somewhat greater detail (see appendixes 1, 2 and 3 herewith).

Pricing considerations of intrastate carriers

Operations by a large intrastate airline such as PSA or Southwest Airlines involve exactly the opposite considerations. Service by these airlines is performed in markets which have nearly optimum operational characteristics. These intrastate operators serve only a few points, almost all of them large cities, and generally provide commuter-type service in markets which generate a large volume of traffic. As a result, these intrastate operators have less need for different aircraft types to cope with differing traffic densities or stage lengths, and have little problem with respect to positioning of aircraft. On the contrary, they can successfully employ wide-bodied aircraft, which are extremely efficient, they can configure their aircraft for high density operation, operate at extremely high-load factors and achieve a high degree of aircraft utilization. Let me give you two comparisons in this regard, one dealing with load factors, the other dealing with station utilization. In 1973, the certificated industry had a coach load factor of 52.4 percent. By way of comparison, a decision issued by the California Public Utilities Commission in April 1974 indicated that Air California, another intrastate California operator, had load factors in 1973 averaging 67 percent—or almost 15 points above the certificated industry average. Similarly, the trunkline industry in 1972 averaged about 262,000 passenger enplanements per station, and American Airlines, which had the most passengers per station, had just under 400,000. PSA, on the other hand, averaged 545,000 passengers per station in 1972. Now that translates into a highly efficient operation. Undoubtedly, the lack of Federal regulatory requirements, including reporting requirements, and the lack of expenses associated with interline ticketing and reservations involved in the many two-carrier services provided over the interstate system, also reduce the cost of operations by the intrastate carrier to some degree. And I am inclined to believe that it is easier to manage a small, reasonably self-contained system than it is to manage a nationwide route system. All of these factors help to hold down the cost of operating and permit airlines like PSA or Southwest to offer very attractive fares.

Having said all of that, I would like to make one point which I think is often overlooked. The table below (table 1) shows that the intrastate carriers, in these higher density markets, operate at generally lower fares than the carriers regulated by the Board. However, there are differences even among intrastate carriers. For example, PSA, on the West Coast, operates in the 338 mile Los Angeles-San Francisco market—which is the largest in the world in terms of passengers—at a per-mile fare of about 5½ cents. The per-mile fare increases to 8.6 cents in the 209 mile Los Angeles-Fresno market, which is shorter and has less traffic. On the other hand, Southwest Airlines operates between Houston and San Antonio at a regular, daytime per-mile fare of over 12 cents. Clearly PSA has been able to achieve efficiencies in its Los Angeles-San Francisco operation which the intrastate Texas airline is unable to match and which, in fact, PSA itself cannot duplicate in other of its markets. It is also likely that a carrier like PSA could not duplicate its San Francisco-Los Angeles success in the northeast corridor markets.

Nevertheless, I think that everyone is willing to agree that passengers in high density markets regulated by the Board—such as Boston-New York or Boston-Washington, for example—may pay a little more than they would if these markets were served only by airlines which could tailor their operations more closely to the special requirements of these routes. One of the results of the current system of regulation, after all, is that fares of comparable mileages are the same notwithstanding the particular economic characteristics of the markets involved, including the number of passengers in the markets. However, any attempt to adjust the uniform fare formula so as to account for market characteristics could produce some highly anomalous results. For example, a particular low-cost market may have several intermediate points not sharing the low-cost characteristics. If the fare in the low-cost market were adjusted downward, passengers traveling to the intermediate points could well be required to pay a higher fare than passengers traveling to the more distant point in the low-cost market. Similarly, while passengers in low-cost markets would probably continue to get multi-frequency competitive service, with modern jet equipment, at a somewhat lower fare, travelers to smaller communities—places like Worcester or Hartford—might well get higher fares, or perhaps smaller or non-jet equipment. Although that might be more efficient if looked at only from the perspective of air transportation economics, the effect on the overall economic health of these smaller com-

munities is not as easy to predict. The potential problems are legion, but I think it is fair to say that it is not feasible to consider a particular market in isolation in view of the extensive route system now being operated.

Board policies affecting fare levels

Let me point out, in this regard, Mr. Chairman, that the Board has specifically considered the possibility of establishing fares on a flexible basis in order to allow carriers to match fares to the costs in particular markets. That proposal was recently presented in the Domestic Passenger Fare Investigation by the Departments of Justice and Transportation, among others. Basically, it was argued that the Board should allow airlines the flexibility to set fares within a zone ranging above and below the fares found reasonable by the Board. The adoption of such a procedure, it was contended, would inject a measure of price competition into the setting of air fares and would permit individual airlines the opportunity to tailor their fares to the specific needs of particular markets. The Board rejected the proposal, and I have included among the materials submitted to the subcommittee that portion of the Board's decision which deals with that subject. Let me outline the Board's conclusions briefly.

The Board observed, in the first place, that for over thirty years prior to its decision in the Domestic Passenger Fare Investigation, it had never established a general passenger fare level or structure. As a result, between 1938 and 1970, the airlines had been free to file tariffs proposing changes in their normal fares, either upward or downward. However, as a factual matter, the only proposals submitted by the airlines during the entire period were increases in fares. Price competition in normal fares, in other words, has been virtually nonexistent. And this is really not surprising. Carriers do not engage in price competition because they ordinarily cannot expect any significant advantage from such action. Competitors, after all, are always free to match any reduction in fares and, as a result, a carrier cannot expect that a fare reduction will increase its competitive position or generate sufficient additional traffic to offset the decline in overall yield. This result flows inevitably from the character of the airline industry. Congress has subjected to regulation and control both entry into the industry and entry into individual markets, with the result that the number of competitors over individual routes is necessarily limited. As long as Congress wishes to retain a regulated system, with limited entry, and designed to provide air service across the nation and not merely to big cities or in heavily traveled markets, it is simply not realistic to expect pricing behavior representative of a truly competitive market structure. On the other hand, it is virtually certain that the so-called flexible fare approach would inevitably lead to an overall fare level in excess of that found reasonable by the Board. The flexible fare proposal, in short, would be simply a license for the carriers to raise their fares to the traveling public without submitting those fare increases to the Board and there would be no incentive to keep fares below the maximum level permitted. The Board's use of average industry costs at least gives each airline the incentive to keep its own costs as low as possible. The bigger the difference, after all, between an individual carrier's costs, on the one hand, and industry average costs, on the other, the greater the profits for the individual airline. That is a pretty powerful incentive.

Let me make one final observation about the regulated system. The Congress has given the Board what I think should properly be described as a balanced mandate—a mandate, in other words, to provide good service to the traveler and shipper, at a reasonable price, and with reasonable profits to the industry. When that mandate gets out of balance, I think it is up to the Board to bring it back into balance. The Board's job is always more difficult in times of economic downturn, when airlines want to reduce service to save fuel or money, and increase fares to cover increased costs, but the traveling public would like to continue the same quality of service and the same fares that prevailed in better economic times.

The current economic circumstances, brought about in large part by the unprecedented rise in fuel prices, is virtually without parallel in aviation history. But I want to assure this subcommittee that the Board is taking a long hard look at its regulatory responsibilities in light of the drastically changing economic circumstances. In this connection, you may be interested to know, Mr. Chairman, that the Board has established a special, independent staff to study the effectiveness of Federal economic regulation with respect to air transportation. Dr. Lucile Keyes, a distinguished economist, has accepted the Board's

invitation to serve as an economic consultant to the staff. And we shall also take a long hard look at our responsibilities in light of the information that comes out of these subcommittee hearings. My experience on the Board's staff, and most recently as one of the Board's members, convinces me that the Board can respond creatively to the challenges and responsibilities which the Congress has placed upon our shoulders.

TABLE 1.—COMPARISON OF FARE RATES FOR CAB-REGULATED AND NON-CAB-REGULATED CARRIERS IN SELECTED MARKETS

Carrier	Coach fare	Mileage	Elapsed time ¹	Fare per mile (in cents)	Fare per minute (in cents)	Comments
Northeast corridor interstate markets:						
BOS-NYC (LGA)...	EA, AA, NA, NE...	\$25.93	185	:49	14.02	52.91
	DL.....	24.07	185	:49	13.01	49.12
	EA.....	20.37	185	:49	11.01	41.57
NYC-WAS (DCA)...	EA, AA.....	27.78	214	:54	12.98	51.44
BOS-WAS (DCA)...	EA, AA.....	41.67	399	1:07	10.44	60.19
Selected intrastate markets:						
California						
LAX-SFO.....	PS.....	18.75	338	:55	5.55	34.09
LAX-FAT.....	PS.....	18.01	209	:45	8.62	40.02
LAX-SMF.....	PS.....	20.47	373	1:00	5.49	34.12
SFO-SMF.....	PS.....	9.73	86	:30	11.31	32.43
SMF-SJC.....	OC.....	11.48	94	:25	12.21	45.92
Texas						
DAL-HOU.....	WN.....	13.89	241	:50	5.76	27.78
						Weekends and evenings.
DAL-SAT.....	WN.....	23.15	241	:50	9.61	46.30
		13.89	250	:50	5.56	27.78
						Weekdays.
	WN.....	23.15	250	:50	9.26	46.30
HOU-SAT.....	WN.....	13.89	191	:40	7.27	34.73
						Weekdays and evenings.
	WN.....	23.15	191	:40	12.12	57.87
						Weekdays.

¹ Fastest block time between 1700 and 1900 hours, unless otherwise appropriate.

Key: AA=American; DL=Delta; EA=Eastern; OC=Air California; WN=Southwest Airlines; PS=Pacific Southwest Airlines; BOS=Boston; DAL=Dallas Fort Worth; FAT=Fresno; HOU=Houston; LAX=Los Angeles; NYC=New York; SAT=San Antonio; SFO=San Francisco; SJC=San Jose; SMF=Sacramento; OAG=QRE, January 1975.

[APPENDIX 1]

Before the Civil Aeronautics Board, Washington, D.C.

[Docket 21866-7]

(71-4-59)

(71-4-60)

DOMESTIC PASSENGER FARE INVESTIGATION—PHASE 7

(Pages 70-72)

Decided April 9, 1971

GENERAL CONCLUSIONS

Unit of ratemaking.—In determining the reasonableness of the overall fare level in any given point of time, we are faced with the fact that we are dealing with a large number of carriers who operate in a highly competitive interlacing route system and that fares cannot be individually tailored to meet each carrier's own revenue requirements. In its 1960 decision in docket 8008,¹⁰² the Board noted that while section 1002(e) (5) enjoined it to take into consideration "each" carrier's need, a large part of the domestic route structure is served by two or more carriers in competition and that fares inevitably will be uniform

¹⁰² General Passenger Fare Investigation, 32 CAB 291 (1960).

as between them, notwithstanding that one carrier's revenue need may be less than another's.¹⁰³ In considering what it deemed the vexing problem of how to reconcile the statutory mandate to consider the need of "each" carrier and the hard fact that fares cannot be regulated on an individual basis, the Board rejected the concept that the fares should be established at levels to meet the need of the most poorly-situated carriers. Such a standard was held to be inconsistent with the standards of section 1002(e) (1) (the effect of rates on movement of traffic) and section 1002(e) (2) (the need for transportation at the lowest cost). The Board also considered that such a standard would be contrary to the mandate of section 1002(e) (5) in that to use the most poorly situated carrier as the unit of ratemaking would result in the vast majority of the public paying rates in excess of the cost of furnishing the transportation. By the same token, the Board noted that it cannot fix fare levels at the need of the most favorably-situated carrier, since such a standard would have a disastrous impact upon the bulk of the carriers and upon the development of air transportation generally.

Accordingly, in consideration of the foregoing, the Board concluded that in the absence of special circumstances, fares which meet the needs of the domestic trunkline industry as a whole would reflect a balancing of the needs of the high- and low-cost carriers, and that where the bulk of the carriers fall within a reasonable range of the standard rate of return and the industry figures are not distorted by the results of unrepresentative carriers, fare adjustments should normally be based upon the results of the industry as a group. This standard does not appear to be challenged in this proceeding, is found reasonable, and is employed herein in our determination of the reasonable fare levels.

A special problem involves the extent to which local service carriers should be considered in fixing the overall fare level. Generally, these carriers operate predominantly short-haul services in the less-dense traffic markets. As a class, these carriers have never been able to realize a sufficient level of passenger revenues to meet the costs of passenger services and they require government support in the form of subsidy in order to furnish their services.¹⁰⁴ Our determination as to the required adjustments does not take into account the needs of the local service carriers. The local service carriers accounted for only 6.6 percent of the total revenue passenger miles in scheduled domestic air transportation in 1969, and their revenue requirements are not representative of the industry as a whole. To include them in the industry results would have a distortionary effect on the fare level since, in the absence of an adjustment in the fare structure or in the divisions of joint fares, the bulk of the need of the local service carriers would be reflected in the trunkline passenger fares. Accordingly, while we have set forth in the appendixes the impact on the local service carriers of the fare adjustments found reasonable herein, the adjustments have been based solely upon the requirements of the trunklines.

[APPENDIX 2]

Before the Civil Aeronautics Board, Washington, D.C.

[Docket 21866-9]
(74-3-82)

DOMESTIC PASSENGER FARE INVESTIGATION—PHASE 9

(Pages 108-22)

Decided March 18, 1974

FARE FLEXIBILITY

A number of proposals have been put forward to allow carriers flexibility to set fares within a zone ranging both above and below the fares found reasonable in this proceeding, and for fares within this zone to be deemed reasonable *per se*. The principal proponents of such a zone are DOJ, DOT, and American. These parties advocate a zone of 15 percent above to 15 percent below the formula-

¹⁰³ 32 CAB 329.

¹⁰⁴ The estimated level of subsidy for fiscal 1971 is \$58.6 million. See order 71-1-143, January 29, 1971.

determined fares. Other proposals are advanced by Delta, Continental MOC, and the Bureau. Delta and Continental support flexibility within a range of plus or minus 5 percent of formula-determined fares.¹⁵⁴ MOC supports establishment of a minimum fare level 15 percent below its formula fare. The Bureau supports a range of plus or minus 5 percent; however, unlike the other zone proposals, fares filed within the Bureau's zone would be only *prima facie* reasonable.¹⁵⁵ Adoption of a fare zone is opposed by United, Eastern, Northwest, TWA, NARUC, and the State of Wisconsin. Judge Johnson found that none of the zone proposals should be adopted.

Upon consideration, we find we are in agreement with Judge Johnson's rejection of these proposals, although for somewhat different reasons.

DOJ supports adoption of maximum and minimum fare levels as a means of stimulating price competition in the domestic air transportation industry. The Department believes that increasing managements' pricing discretion will encourage efficient operations, and lessen disparities in carrier earnings resulting from differences in route structure and other factors beyond management control. DOJ also believes that the availability of price competition will reduce the industry's present tendency to channel competitive forces into expensive service rivalry. Additionally, the Department expects carriers to utilize increased pricing freedom to experiment with fares in order to build traffic, and to adjust fares without regulatory lag to rapid changes in supply and demand. Lastly, the Department argues that giving carriers more pricing latitude will reduce the regulatory burden on the Board, and enable the Board to better carry out its statutory mandate.

DOJ's support of the zone concept is predicated on its belief that fares in the past have been set by a process which results in a uniform Board-established and enforced fare structure. The Department believes that this system of uniform pricing has forced competition into nonprice areas, e.g., flight frequencies, equipment types, seating configurations, and other service amenities, resulting in a constantly improving quality of service, but at significantly increasing cost.¹⁵⁶ The Department believes that the public, if free to choose, would prefer a lesser quality of service at prices reflecting its lower cost. Competitive pricing, it argues, would permit carriers to experiment with fares and service to determine what combination of price and service is most preferred in particular markets.

The DOT supports fare flexibility because, in its view, a simple fare-taper formula is inadequate to provide the optimal fare for all city-pair markets. The record in this proceeding shows that costs vary considerably from market to market, and within markets from carrier to carrier. A simple fare-taper formula cannot, however, accommodate these variations. The Department believes, therefore, that carriers should be free to vary fares in individual markets based upon perceived costs, and upon marketing judgments as to what quality of service the public desires. Market response to carrier decisions would then guide fares. The Department argues that fares which do not reflect costs in each market are unfair either to the public or to the carrier. If the fare is below cost at the optimum level of service, either the carrier will be denied revenue to which it is entitled, or the quality of service will be reduced so that costs may be recovered. If the fare exceeds cost at the appropriate level of service, the public is denied a fare at the lowest cost consistent with furnishing the service. In the Department's

¹⁵⁴ North Central, in its brief, indicated that it does not except to the adoption of a 5-percent range above and below the fare curve within which fare filings would be considered *prima facie* reasonable, provided the flexibility afforded by the range is closely monitored to prevent predatory practices.

¹⁵⁵ The Bureau indicates that its zone proposal is intended to give carriers flexibility to file fares within a narrow range both above and below formula-determined fares without those fares being subject to rejection under the final order in this investigation. Such fares would, however, remain subject to suspension and investigation. In view of the fact that, as discussed elsewhere herein, we have determined not to adopt an order which prescribes specific fares for the future, with exceptions not here material, carriers will not need to seek modification of an outstanding rate order before filing certain "nonconforming" tariffs. Accordingly, we find the Bureau's proposal moot, and it is not further considered therein.

¹⁵⁶ The Department further argues that Board-imposed uniform fares have contributed to the economic disparities that exist between carriers. The Department believes that a uniformly-applied fare formula cannot take into account cost differences that exist between markets, and therefore, tends permanently to relegate some carriers to below-average earnings and others to above-average earnings.

Factors cited by the Department as affecting the comparative cost of service between markets but not easily accommodated in a simple fare-taper formula include route density, congestion, traffic peaks, and equipment types. The Department concludes that where a uniform fare formula is utilized, the most important determinant of a carrier's profitability is its route structure.

view, a single industry-wide fare formula cannot avoid these problems. However, rather than have the Board attempt to set fares on a market-by-market basis, or examine individually the numerous cost-justified deviations from formula-determined fares, the Department believes the Board should give the carriers broad flexibility to adjust fares to costs on a market-by-market basis. In this way, the Board would be spared the necessity of passing on the reasonableness of numerous individual fare filings, and carriers could avoid regulatory lag in changing or modifying fares to track with movements in the level and structure of costs. Finally, DOT advocates fare flexibility as a means of enabling carriers to determine the optimal price/quality relationship in each market. In the Department's view, there are considerable variations in desirable service quality between markets of similar distance.¹⁵⁷ Use of an industry-wide fare formula, however, produces the same quality of service in markets of similar distance regardless of the inherent differences in the market's service needs.

American supports fare flexibility because it believes that a fare structure based upon approximations of industry average costs is inadequate for determining the appropriate fare in particular markets. American, like DOT, contends that since costs vary considerably from market to market, equitable treatment for passengers and carriers requires that carriers be given meaningful pricing flexibility in order that these cost variations may be reflected in the fare structure.¹⁵⁸ American also argues that fare flexibility will permit carriers to test fares in the marketplace and thereby determine their effect on traffic.¹⁵⁹

Continental supports fare flexibility as a means of enabling carriers more easily to adjust fares in individual markets to reflect marketing considerations, and to encourage price competition. Continental believes that price elasticity varies from market to market, and that carriers need increased pricing discretion to react to marketing realities.¹⁶⁰ Continental argues that under the statute fares are supposed to reflect not only costs, but value of service principles as well. Strict adherence to a uniform fare formula, however, inhibits management's ability to reflect value of service considerations in the fare structure. Continental supports increased opportunities for price competition so carriers will not have to come to the Board every time they want to introduce a fare reduction.

Delta supports fare flexibility limited to plus or minus 5 percent of formula fares because it believes that such a range more nearly corresponds to costs than does a single formula-determined fare. Delta argues that, in view of the numerous judgmental factors involved in mileage block costing, the best that can be expected with reasonable assurance of accuracy is development of a cost band or profile. Delta believes that after an initial stabilizing period,¹⁶¹ carriers should be free to adjust fares within this band without the fares being subject to suspension on reasonableness grounds.

¹⁵⁷ DOT-T-3. The variations are the result of difference in passenger density and type of traffic. The Department believes that in dense markets passengers would prefer lower-than-average fares and higher load factors, and the converse in less-dense markets. Likewise, the Department believes business passengers would be willing to pay higher fares for more frequent service, and vacation travelers would accept higher load factors in return for a lower fare.

¹⁵⁸ American's contention is that the Bureau's costing methodology produces only estimates of average trunkline costs, which, like all averages, tend to mask the wide cost variations that exist between markets. American concedes that the inherent limitations of the regulatory process make it unrealistic to attempt to determine the cost of domestic air transportation on a market-by-market basis. However, rather than ignore the cost variation, as American alleges an industry-wide fare formula does, the carrier contends that the practical way to reflect cost variations in the fare structure is by giving carriers sufficient flexibility to adjust fares to perceived costs on a market-by-market basis.

¹⁵⁹ In conjunction with this expectation, American refers to the oft-repeated argument in this proceeding that short-haul fares cannot be raised to the level of short-haul costs without adversely affecting traffic in those markets. American contends that this generalization is deceptive and without convincing support in the record. American believes instead that elasticity varies from market to market, and supports fare flexibility as a means of permitting carriers to increase fares in those short-haul markets where to do so would not significantly affect traffic.

¹⁶⁰ For example, Continental points out that in some markets carriers compete against ground transportation. In such markets, Continental believes carriers would utilize fare flexibility to lower fares to attract more traffic. Likewise, flexibility would permit fare decreases in vacation-oriented markets in order to attract added traffic. On the other hand, in business markets, carriers could increase fares to compensate for the lower fares in more price-sensitive markets.

¹⁶¹ Delta proposes that formula-determined coach fares and other basic fares based upon percentage relationships to the coach fare remain in effect without change for a period of 6 months following the final order in this investigation.

In general, the parties which oppose fare flexibility argue that the proposals in effect constitute a deregulation of air transportation and are inconsistent with the policies of the Act. Some express concern that the adoption of such a proposal could result in discrimination between passengers traveling in different markets. Finally, the carriers opposing flexibility argue that it could result in economically destructive competition. They are concerned that in competitive markets fares will necessarily fall to the bottom of the zone resulting in inadequate earnings for the industry.

Upon consideration of the foregoing, the Board has determined to affirm Judge Johnson's rejection of the various zone proposals.

In general, the proposals rest on an erroneous understanding of the Board's past practices with respect to fare policy, and on unrealistic assumptions as to how the industry would respond to a policy of partial deregulation of fares. In our opinion, adoption of any of these proposals would be tantamount to abdication of our statutory responsibility to protect the public interest in reasonable fares. Moreover, we believe that the proposals would inevitably lead to an irrational and inequitable fare structure and to an unwarranted escalation of the fare level.

As previously noted, DOJ's position rests on its contention that the historic absence of price competition in the domestic air transportation industry is largely the result of a uniform Board-established and enforced fare structure. Eliminate the Board-enforced rigidity, says DOJ, and the carriers will engage in price competition rather than costly service competition. However, the facts do not fit the theory. The facts are that until this proceeding, the Board had never prescribed a general domestic passenger-fare level, or minimum or maximum levels. Under section 1002(d) of the Act, although the Board is empowered to establish reasonable fares, it may do so only after finding the existing fare level unlawful. While the Board has adjudicated the reasonableness of numerous individual fare proposals, prior to the issuance of the opinion and order in Phase 7 of this DPFI,¹⁶² it had never before found the existing general passenger-fare level unlawful.¹⁶³ Consequently, until this proceeding, it has never had occasion to prescribe a general domestic passenger-fare level or structure.

Thus, for over thirty years the carriers have been free to file tariffs proposing changes in their normal fares, either upward or downward, subject to the Board's power to suspend and investigate. The history of carrier-initiated fares under this regime inspires little confidence in the likely end-results of the zone proposals. For, aside from the patchwork fare structure which evolved, the fact is that, for all practical purposes, the only proposals to adjust normal fares during this entire period involved increases.¹⁶⁴ Price competition in normal fares has been virtually nonexistent.¹⁶⁵

Indeed, even in Phase 7 of this proceeding, when the Board for the first time established a general constraint on future domestic fare filings, we imposed a maximum fare level only,¹⁶⁶ in an effort to afford managerial discretion in implementing fare changes. The carriers' response to this pricing discretion, however, was to raise virtually all basic fares to the maximum level permitted, and to continue their intensive nonprice competition, as well as price competition in the form of discount fares.

It is clear, therefore, that the general absence of price competition in normal fares is not, as alleged, the result of a Board-imposed fare structure. Rather, it is directly attributable to the economic structure of the industry. Carriers have demonstrated little inclination to engage in such price competition because they normally can expect no significant advantage from such action. Competitors are always free to match any fare reduction, and as a result, a carrier cannot

¹⁶² Order 71-4-60 dated April 9, 1971.

¹⁶³ In the Suspended Passenger-Fare Increase case, 25 CAB 511 (1957), the Board, while not finding the existing fare level unlawful, did find that tariffs proposing increases in substantially all domestic fare levels were unjust and unreasonable. The decision did not result in a Board prescription of fares for future application, but only in the cancellation of the proposed increases.

¹⁶⁴ Exceptions to the rule are three across-the-board fare decreases implemented during World War II. These reductions were not, however, the result of intercarrier price competition, but were in response to orders to show cause why passenger fares should not be reduced. See e.g., order 2164, adopted February 27, 1943. Also, it should be emphasized that the above discussion is concerned with standard-class fares, and does not consider carrier proposals for introduction of new lower-cost forms of service at fare levels below existing fares, e.g., the introduction of coach service by Capitol Airlines in 1948 at a level approximately 2 cents below first-class passenger-mile rates.

¹⁶⁵ In recent years, the carriers have, however, engaged in extensive discount fare competition which was the subject of our exhaustive opinion in Phase 5 of this investigation, and is not further considered herein.

¹⁶⁶ Orders 71-4-59 and -60, p. 80.

expect a fare decrease to improve its market share and consequently its competitive position. As a consequence, reductions in normal fares can only lead to a reduced passenger-mile yield and, unless traffic expands substantially, to reductions in carrier earnings. And, as the evidence in Phase 7 indicates, normal-fare traffic appears to be relatively inelastic with the result that general fare reductions do not generate sufficient additional traffic to offset the decline in overall yield.

Also of significance in explaining the absence of normal-fare price competition between air carriers, and a fact with which the proponents of fare flexibility not come to grips, is the character of the industry. Congress has subjected to regulation and control both entry into the industry and entry into individual markets, with the result that the number of competitors over individual routes is necessarily limited. The Congressional purpose was to enable the Board to prevent excessive competition which, because it is uneconomic, would inevitably drive up fares. As a consequence, effective competition on all but a few individual city-pair markets is confined to a relatively limited number of carriers—and many markets are served by only one carrier.¹⁰⁷ Under these circumstances, to expect pricing behavior representative of a truly competitive market structure is ingenuous at best, and it is therefore not surprising that competition in basic fares has been virtually nonexistent.

The second failing of the zone proposals is that they are premised on unrealistic assumptions as to how carrier managements are likely to respond. In general, two different types of pricing responses are predicted by the zones proponents. First, they expect that the deregulation of fares within a zone of plus or minus 15 percent of the formula fares will encourage price competition; and second, they support fare flexibility as a means of permitting carriers to adjust fares to the level of costs on a market basis.

Although the proponents of fare flexibility anticipate it will encourage price competition, for the reasons outlined above, we believe instead that carrier managements will react to this form of pricing flexibility in the same manner they have always reacted to the extensive flexibility which they have historically been afforded, and that is to compete on the basis of service rather than price. On the other hand, a policy which automatically permits carriers to adjust fares to levels 15 percent above the formula will enable the carriers to increase fares to levels far in excess of cost plus a fair return. There is no reason to believe that the carriers will not avail themselves of this opportunity, the resultant excessive earnings inevitably being used to finance additional service competition.

In any event, insofar as the different price-service levels predicted to result from increased price competition merely represent introduction of lower cost forms of service—such as with more densely configured aircraft—nothing prevents carriers from introducing such services at appropriate fares. The fare structure we are adopting herein is applicable only to existing forms of service. However, to the extent the price-service differentials envisioned by DOJ and DOT contemplate carriers competing over the same routes on the basis of high-load factor/low-price service versus low-load factor/high-price service, there is no evidence that such competition would take place. Without further belaboring the point, it may again be noted that for over thirty years the carriers have been free to offer prices different from those of their competitors, but with insignificant exceptions, airline fares have always been uniform. Again, this phenomenon is hardly surprising. Assuming that a particular carrier were to reduce its fares predicated on achieving a higher-load factor, other competing carriers would be compelled to reduce their fares, the result being that all carriers would have to achieve a higher load factor if earnings were not to be adversely affected. Thus, the public would not have a choice of different prices, but would be forced to pay for whatever level of service could be economically provided at the established fare. We are at a loss to perceive how this result squares with our obligation under section 1002(e) (2) to take into account "the need in the public interest of adequate and efficient transportation of persons and property * * * at the lowest cost consistent with the furnishing of such service."

American, on the other hand, indicates that it would not expect price competition to result in carriers competing in the same market by offering different fares. Rather, American anticipates that price competition, while producing uniform fares, will result in a greater emphasis on efficiency. However, why a carrier would reduce its fares, and concurrently its yield per passenger-mile, when to do so would not increase its market share, is not all clear, since the result of such action would be that the carrier earns less money than it did prior to the

¹⁰⁷ See exhibit TW-9-T-B.

fare decrease. American concedes this point, but fails to adequately explain why a carrier would still act in a manner likely to decrease its revenues.

Nor is there any likelihood that under fare flexibility carriers will adjust fares to the level of actual costs on a market-by-market basis, that fare reductions would be made in those markets in which actual costs are below industry average cost for the stage length involved, or that fares would be raised only in markets where costs or other justification exists. Managements' basic incentive is the maximization of revenues, and not adjusting fares to costs. Accordingly, in markets where the value of service exceeds the formula fare, carriers would seek to raise fares to the maximum amount permitted resulting in fares based upon whatever the traffic will bear, irrespective of the cost of service.

In sum, we are forced to conclude that the zone proposals essentially constitute thinly-veiled efforts to eliminate meaningful regulation of passenger fares. The proposals themselves contain no safeguards to prevent unreasonable increases in the overall fare level. Moreover, adoption of a fare zone would nullify our laborious efforts to achieve a rational, equitable and cost-oriented fare structure.

Finally, much of the concern of the proponents of a zone concept of regulation is related to the fear that a detailed Board prescription of the specific fares to be charged in the future would create intolerable rigidities. Such an order would, until amended, preclude the filing of fare changes, and amendments could, in many instances, necessitate evidentiary hearings. A fare prescription order which permitted deviations within a zone would permit a degree of carrier-initiated fare change without procedural impediments. However, as detailed elsewhere in this opinion, our order, for the most part, will not contain a prescription of specific fares to be charged for an indefinite future period. Instead, we have determined not to restrict the carriers' freedom to file tariffs proposing fare level changes, or to propose structural changes that have the effect of bringing the fare curve closer to the cost curve at all distances. We will, however, restrict the carriers' discretion to propose structural changes which have the effect of moving the fare curve farther from the cost line at any distance than the fare curve we have adopted herein. Throughout the various phases of this investigation, one of the Board's overriding concerns has been the development of a fare structure as closely cost-based as possible. For this reason, we believe it essential that the Board prescribe the parameters of the fare structure if our efforts are not to prove an exercise in futility. Within these limited constraints, carriers will remain free to initiate fare changes by filing tariffs subject to our powers to suspend and investigate.

In sum, a denial of fare flexibility as here proposed will not prevent carriers from establishing changed fare levels consistent with the provisions of the Act. Nor does our decision in any manner prevent carriers from offering new types of service at fares commensurate with costs. Thus, fare flexibility is already possible whenever factors justifying its existence are present. However, considering the pricing history of this industry and the true economic incentives associated with increases or decreases in fares, we continue to believe that a close monitoring of proposals for fare changes is necessary if the public is to be protected from unreasonable fares and the economic viability of the industry maintained.

[APPENDIX 3]

Before the Civil Aeronautics Board, Washington, D.C.

[Docket 8008 et al.]
(E-16068)

GENERAL PASSENGER FARE INVESTIGATION

(32 CAB 291, 328-31)

Decided November 25, 1960

RATE LEVEL

As noted earlier, the unreliability of the expense and revenue forecasts in the record makes it impossible to determine the proper fare level in this proceeding. We have therefore confined ourselves in this opinion to the fixing of

the standards which will be employed in regulating future fare levels. There remains for consideration the question of the method of employing these standards in future cases.

Essentially, the major problems of application of the standards fall into two categories: a) the extent to which the fare level should be based upon results to be anticipated over an extended period, and b) the extent to which fares should be regulated on an industrywide basis.

a) No party has suggested that we attempt to regulate fares so as to produce a particular rate of return for every 12-month period. It is manifest that in an industry in which costs and revenue factors tend to fluctuate and are difficult to forecast precisely for any short-term period, any attempt to maintain a constant rate of return would be futile. There is thus general agreement among the parties that the fare levels must be regulated to produce a reasonable return over an extended period of time.

This is not to say that short-term considerations need always be ignored. For example, if fare relief is necessary to prevent financial ruin to the bulk of the industry, we would clearly not be justified in refusing such relief on the ground that the adverse factors responsible for the industry's condition were merely of a temporary nature. Thus, the extent to which short-term factors would be influential in affecting the fare level must depend on the length of time those factors are expected to remain operative and the magnitude of their impact on the carriers' operating results.

From the foregoing it is apparent that the problem of determining when and for what periods fare adjustments should be made cannot be relegated for solution to any mechanical device. For this reason we do not believe that the 5-year moving average formula proposed in the initial decision is practicable.²¹ Rather, the determination of when to permit fare adjustments and the length of the future period which should be considered in making these adjustments can be resolved only on a case-by-case basis, applying informed judgment to the task of balancing the relevant factors.

(b) The second major problem in the application of standards relates to the so-called unit of ratemaking. Section 1002(e) (5) sets forth, as one of the factors to be considered in ratemaking, "the need of each air carrier for revenue sufficient to enable such air carrier under honest, economical, and efficient management, to provide adequate and efficient air service." While we are thus enjoined to take into consideration "each" carrier's need, we are also faced with the facts that a large part of the domestic route structure is served by two or more carriers in competition, and that fares must be uniform as between them, notwithstanding that one carrier's revenue need may be less than another's. In short, we must reckon with the vexing problem of how to reconcile the statutory mandate to consider the need of "each" carrier with the hard fact that fares cannot be regulated on an individual basis. Specifically, shall fares be fixed to meet the needs of the carriers as a group, of the smaller trunks, of the poorest situated carrier or possibly even of the most favorably situated?

The initial decision concluded that fares should be set at levels which would meet the average of the costs, including return, of the bulk of the industry. In effect, the entire domestic trunkline industry would be treated as a single unit and would be regulated so as to produce an overall rate of return to the industry equal to 10.6 percent, the weighted average of the returns which were found reasonable in the initial decision for the "Big Four" and "Medium Eight" carriers, respectively. The parties disagree among themselves as to the propriety of this "bulk-line" approach. Some of the carriers and bureau counsel agree that the nature of the industry requires that fare levels be set on the basis of the industry as a whole, whereas other carriers and the GSA argue that the initial decision method violates the requirement of section 1002(e) (5) that we consider the need of "each" carrier. We agree in general with the result, although we reach that result by somewhat different means and would subject it to some qualifications.

²¹ The initial decision found that rates should be set by a formula under which average earnings would be fair and reasonable over a reasonably extended period, yearly and 5-year averages being given special consideration. Under this formula, yearly and 5-year earnings of the industry would be allowed to fluctuate between an average of 10 and 12 percent on investment. Carriers would be allowed fairly high rates in an individual year if the 5-year average is low, and consideration would be given to raising the fare level if the earnings for a particular year fall below 10 percent, and to lowering the fare level if the 5-year average rate is above 12 percent.

We note that the formula would have the effect, at least partially, of adjusting future rates to compensate for past earnings deficiencies or excesses, a result which appears at war with the doctrine of *T.W.A. v. Civil Aeronautics Board*, 336 U.S. 601 (D.C. Cir. 1949).

The initial decision is based in large part on the theory that regulation should strive toward achieving the same kind of results that would obtain in the open marketplace, and upon the belief that fixing fares at the level proposed in the initial decision would substantially achieve that result. But conformance with results under hypothetical free competitive conditions is not one of the stated policy objectives of the Act, nor is it one of the statutory ratemaking standards. We would not be justified in refusing to consider the need of each individual carrier merely because a "bulkline" concept may more nearly approach the results under free competition. Nor can we read section 1002(e) as authorizing the Board to ignore the need of each carrier in favor of the need of the carriers as a group. As the excepting parties have pointed out, the statute does not speak in terms of groups of carriers but rather of individual carriers. The fact that we cannot regulate fares so as to provide precisely for the need of each individual carrier does not authorize us to refuse to take such need into consideration.

On the other hand, we clearly are not required to establish fare levels to meet the need of the most poorly situated carrier as Eastern contends we must. The statutory requirements that we "consider" the need of each carrier is only one of five ratemaking factors which we are required to weigh. Consideration of the other ratemaking standards of section 1002(e), particularly the effect of rates on movement of traffic (section 1002(e)(1)) and the need in the public interest for transportation at the lowest cost (section 1002(e)(2)) militates against the adoption of the least profitable carrier as the standard for fixing rates. Moreover, the standard pressed upon us by Eastern would be inconsistent with the need factor itself. Thus, were we to base fares on the results of the poorest situated carrier we would of necessity be ignoring the need of every other carrier, contrary to the mandate that we consider the need of each of them. Finally, to use the most poorly situated carrier as the unit of ratemaking would result in the vast majority of the public paying rates greatly in excess of the cost of furnishing the transportation and would unjustly enrich the great majority of the air carriers.

By the same token, we obviously cannot fix fare levels on the basis of the need of the most favorably situated carrier. Such a standard could have a disastrous impact upon many of the other carriers and upon the development of transportation generally. It is thus clear that the proper fare level must be found at some point between the needs of the most profitable and least profitable carriers and the determination of the unit to which the standards shall be applied must be based upon informed judgment. Insofar as the need standard is concerned, this determination can only be made after testing any fare proposal against the needs of the industry as a whole, smaller groups of carriers, and each individual carrier.

The approach recommended by bureau counsel appears to us to accommodate reasonably the practical problems of industrywide regulation with the requirements of the statute. The Bureau would first examine the results of the carriers as a group by taking the weighted average of the relationship of yield per passenger-mile to cost per passenger-mile (including return on investment).²² This industry average, although not controlling, is entitled to great weight. It indicates the extent of the general fare adjustment needed to produce a reasonable return for the industry as a whole. The Bureau would then test the resulting fare level against the needs of the individual carriers and of groups of carriers. Thus, consideration is given to the extent to which the fare level meets the costs of the Big Four and the Medium Eight carriers; the relative number of passenger-miles accounted for by the various carriers; the extent by which each carrier deviates from the norm; the effect of such deviation on the group and industry averages, etc.

In the absence of special circumstances, the record indicates that rates which meet the needs of the domestic trunkline industry as a whole would reflect a balancing of the needs of the high-cost and low-cost carriers. Where the bulk of the carriers fall within a reasonable range of the rates of return found herein to be proper, and industry figures are not distorted by the unrepresentative results of carriers who are in extremely poor or extremely favorable situations, fare adjustments should normally be based upon the results for the industry as a group.

²² The Bureau would weight the average on the basis of revenue passenger-miles performed by each carrier.

Inevitably, under an industrywide system of regulation some carriers may fall below the standard rate of return. That a given carrier may earn less than the standard during a particular period is not by itself a cause for concern since, as we have previously discussed, the reasonableness of earnings must be judged over an extended period of time. On the other hand, even failure to earn the standard return for an extended period does not necessarily mean that the particular carrier will be unable to compete, grow, and prosper. Our findings on rate of return demonstrate that the rates of 10.25 and 11.125 which we have adopted as standards are not minimum returns below which confiscation would result. Rather, we have deliberately adopted rates of return which are above the minimum returns but within the broad range of reasonableness. In arriving at these rates, we have taken into consideration the circumstances, that fares cannot be fixed on an individual-carrier basis because of the competitive nature of our domestic rate structure and that some carriers will of necessity earn less than the average standard of return. Thus, in view of the level of the rate-of-return standards established, we would not regard a carrier's earnings to be deficient unless those earnings fell significantly below the standards for an extended period.

The problem of accommodating the requirements of the weak and strong carriers is, of course, one of the most difficult to be found in regulation. Clearly, general fare increases cannot be regarded as the panacea capable of solving the problem. There are other tools which are more appropriate for use in dealing with the less profitable carriers. First, an overall examination of the general passenger-fare structure, an issue excluded from this proceeding, might well result in bringing the costs and revenues of the individual carriers into closer alignment. Second, as the examiner pointed out, carriers whose needs are not met by general fare-level adjustments can seek higher fares, although competitive aspects would preclude them from charging such fares except on some few noncompetitive segments (assuming, of course, that such fares are otherwise lawful). A third tool is that of route realignments designed to produce a more balanced competitive structure. Finally, we are authorized by section 406 of the Act to grant subsidy payments where we find that such compensation is required in the interests of commerce, the postal service, and national defense. Whether, and to what extent, any of these approaches should be used will, of course, depend on all surrounding circumstances. Suffice it to say, however, that the Board has available to it a number of techniques for dealing with problems not amenable to solution by regulation of the general level of commercial fares.

We have considered all the exceptions to the initial decision, and we find that, except to the extent indicated, they should not alter our decision herein.

An appropriate order will be entered.

Chairman Gilliland, Vice Chairman Gurney, and Member of the Board Boyd, concurred in the above opinion. Member Minetti filed the following concurring and dissenting opinion. Member Bradgon, did not take part in the decision.

Senator KENNEDY. Our next witnesses represent Eastern, Delta, and American Airlines: Mr. Morton Ehrlich, of Eastern Airlines, Mr. Randall Malin of American and Mr. Morris Shipley of Delta Air Lines.

Dr. Ehrlich is vice president of planning and chief economist for Eastern. In addition to serving on various committees of the Air Transport Association of America, Dr. Ehrlich is an adviser to the U.S. Department of Labor.

Mr. Randall Malin, vice president of market planning, has worked for American Airlines since 1961 and has had the positions of director of economic research, assistant to the president, director of marketing plans and assistant vice president of market planning.

Mr. Morris Shipley is vice president of government affairs for Delta Airlines and has been employed by Delta since 1962.

I welcome you to our hearings today. As you know, I am going to have to leave, but we have some questions.

STATEMENTS OF DR. MORTON EHRLICH, VICE PRESIDENT FOR PLANNING AND CHIEF ECONOMIST, EASTERN AIRLINES; RANDALL MALIN, VICE PRESIDENT OF MARKET PLANNING, AMERICAN AIRLINES; AND MORRIS SHIPLEY, VICE PRESIDENT OF GOVERNMENTAL AFFAIRS, DELTA AIR LINES

Senator KENNEDY [continuing]. Mr. Malin, I know American Airlines did a study, a printout really, on the costs of providing the type of service that PSA or Air California offers in other parts of the country.

Could we start off with that?

THE POSSIBILITY OF PSA-TYPE SERVICE IN THE NORTHEAST

Mr. MALIN. Yes, we said we felt there were cost reductions that could be effected were we to offer a computer only type service in one of the Northeast markets. We estimated that cost reduction at approximately 22 percent. We spelled out the savings that we thought we could accomplish, mainly in ticketing and reservations and on-board service. We did not take any savings for a lower union-wage scale or a change in work rules.

The point that we see—the difficulty we see if we were to implement such a system or if some other carrier were to implement such a system, is that it would have an impact on the citizens of Boston, not in terms of their commuter markets, but on the one-stop service that we presently provide. We pointed out that we currently operate 15 flights in those markets to Washington and New York, and it may come as some surprise that 41 percent of our passengers onboard to New York are not destined for New York and 26 percent of the passengers to Washington are going beyond or connecting to another carrier. So some provision has to be made for that traffic, and this is the point that others have been making this morning, that we are certificated or part of a number of carriers certificated to provide a system of air traffic. We are not specialists in the commuter market. We do not regard our obligations to the Boston citizenry just to minimize fares from Boston to New York and Washington at the expense of other services.

So that we feel what happens to those other markets must be taken into consideration if a commuter service is to be implemented. At the time that Eastern implemented their shuttle in 1961, American felt it could not compete and we pretty much withdrew from the shuttle market. It was not until the price came back up that we reentered those markets.

Mr. SHIPLEY. Delta has not made any studies of this thing, and there is one item that has not come up and I would like to point out, and that is the limitations of the use of Washington National Airport. There is an absolute curfew on jet operation between 10 p.m. and 7 a.m. in the morning. As it happens Delta has the fewest slot operations save one. There is no way we could implement any high frequency operations in the market.

Senator KENNEDY. You might have a reduction of the total number of planes. If you had the planes fuller there might be less frequency.

There is no reason in the world it necessarily means you will have more frequency on it.

Mr. SHIPLEY. With the slot allocations of Delta at the present time we cannot operate really any more frequency of service.

Senator KENNEDY. Who allocates that?

Mr. SHIPLEY. It is done. The limit is placed by the FAA and within that hourly limit the carriers primarily on grandfather basis and with approval of the CAB made the actual allocation arrangements.

Senator KENNEDY. It is really done within the airlines themselves, is that correct?

Mr. SHIPLEY. That is correct.

Senator KENNEDY. You would not welcome having some other people trying to come in there and having them really shake up that allocation again.

Mr. SHIPLEY. Delta would be delighted to get some more allocations, sir.

Dr. EHRLICH. Eastern Airlines has been flying the shuttle for many years now and has one striking characteristic, it seems to be the type of service that people who travel in this corridor are demanding. We at various times attempted to gain a larger share of the market. We run about 70 percent of the market at roughly that load factor.

A few years ago we attempted to put on a meal service or a snack service and we noticed that our market share deteriorated several points. We went back to basic no-frills in-flight ticket plan and our market shares snapped right back.

Our conclusion, although we have looked at the PSA kind of service, we feel we are providing precisely the type of service that traffic in the corridor is demanding and our success in that area justifies the type of service we are providing.

I would also point out that with regard to the slot problem, La Guardia is in precisely the same situation as Washington National.

Senator KENNEDY. Well, as I understand, Eastern expansion can expand capacity with larger backup planes in parts of their shuttle.

Dr. EHRLICH. That is right.

Senator KENNEDY. Why could you not provide both services: a cheaper service that would be available to consumers, maybe at a time when they would need to make a reservation, and also the shuttle.

Dr. EHRLICH. We tried that several years ago, recognizing the fact we do have backup service, and that is largely to provide passage for peak hours. We recognize if we could shift traffic off the peaks it would reduce the need for airplanes and thus reduce the need for backup aircraft. We filed for lower fares and the Board approved it, but we did not move one single passenger off peak hours. People have a way of travel and what we found in that particular corridor, we cannot shift them off peak travel hours.

Senator KENNEDY. How much did you discount the fare?

Dr. EHRLICH. I think it was \$3.

Senator KENNEDY. Thank you, Dr. Ehrlich. I am going to have to leave.

We have Mr. Murphy of the Texas Aeronautics Commission who still has not had a chance to testify. There are a few further points I would like counsel to develop with you. If you can stay, I will ask counsel to proceed.

Mr. BREYER [presiding]. I think the most efficient thing to do would be the following. The staff has looked through everybody's testimony and the various documents, to try to answer the basic question: Why is it less expensive to fly in California than it is to fly in the East? There are a number of reasons advanced. We have had to use whatever facts were readily available to evaluate them. I would like to spend 10 minutes reading into the record our evaluation of each of the reasons advanced. I would appreciate it if both the airlines and the Board or anyone else who is interested would go through the record and correct any mistake, fact, or evaluation. I think that would be simpler than asking you questions. Everybody could then respond to what is a "rough first draft" effort.

These are the various reasons given to explain for the difference in costs:

The first is "differences in weather." We asked the FAA for figures. They told us that less than 1 percent of the flights in Washington Airport, New York, and Boston are delayed because of weather. Thus, weather does not account for much of the cost difference.

The second factor is traffic density. If you compare the Washington-Boston fare, \$44, with the Los Angeles-San Francisco fare of \$18.50, and then look at the density, you find that Los Angeles-San Francisco route is much denser. There is no question about that.

But other fares in Texas and California, such as the Orange County-San Francisco fare, are only half as high as the Boston-Washington fare even though their markets are only one-third or one-half as dense as the Boston-Washington market. So that leads us to believe Professor Jordon's statement of the matter: "Once you get to 100,000 passengers a year, density is not a problem."

The third factor the CAB mentioned is the direction of traffic flow: That is, does it only move in one direction? It did not seem to us that the Boston-Washington market tends to move in one direction any more than the California markets, or that it is particularly more seasonal than the California market or the Texas market.

The fourth factor is extra reservation costs and other interlining costs. Dr. Summerfield went into that only in some depth, and concluded that it amounts to \$1.50 per passenger.

Fifth, there are extra labor costs, a third man in the cockpit and a number of miscellaneous costs, meals, frills, and so forth. Dr. Summerfield went into these matters; they came to another \$1.58 per passenger or so. So both the extra reservations, the interlining costs, et cetera seemed to come to \$3 a ticket which did not go very far in explaining \$18 difference between interstate and intrastate fares within California, or the \$25 fare difference between California and the east coast.

The next difference was that the CAB claimed different airplanes are flown on the different routes. We looked to see what airplanes were flown. The airlines in Texas, California, and on the CAB-regulated routes all fly 727's or 737's. On the CAB routes, they fly some DC-9's, too. I don't see why that should make any difference.

The seventh factor is airport congestion. Airport congestion seems to be worse in the East. So we tried to look at flights on which ramp-to-ramp time is roughly the same. That should take into account con-

gestion both on the ground and in the air. So, if you compare flightlegs with ramp-to-ramp times that are roughly comparable, it looks as if routes with similar times in California or in Texas have about two-thirds the fare of CAB-regulated routes. The CAB chart on this is quite interesting. The CAB chart suggests if you look at routes on a fare per minute basis, the California and the Texas fares are about two-thirds or maybe half the east coast fares.

Then there were items like regulatory costs, filing fees, et cetera, that is number eight. They did not seem significant.

Number nine: The need to support other routes in the system. That seems the most serious and the hardest to get firm information on. To what extent should people who fly Boston-Washington actually pay more to subsidize someone else in a different part of the system? Well, are there such people who are being subsidized? DOT and others say there are not many. The Board says there are not many. Are there, or aren't there? We are trying to get solid information on that. If there are such subsidies, we should like to know why they ought to exist.

Number 10: In California and Texas, airlines fill up the plane more and have more seats in the plane. Everyone seems to think this factor is important. Of course, that raises the question of whether the consumer in the East too should be offered a choice of flights with fuller planes, more seats in the plane, and no meals. I think that is a serious question.

Now, I have listed the factors. Our rough information on each is contained in our charts. We have to write a report that will reflect a dialog with the industry, the Board, and others. It would be helpful to have people look at each of these factors and either substantiate our conclusions, or show these tentative conclusions are wrong.

[Tentative conclusions of subcommittee staff follow:]

INTERSTATE/INTRASTATE FARE COMPARISON

TENTATIVE STAFF CONCLUSIONS

The problem

Fares on intrastate routes (unregulated by the CAB) are one-half to two-thirds the level of fares on apparently similar interstate CAB-regulated routes. For example, the fare for the 338-mile, 55-minute flight from San Francisco to Los Angeles is \$18.75; but the fare for the 399-mile, 67-minute flight from Boston to Washington is \$41.67. Similarly the fare for the 109-mile, 30-minute flight from Los Angeles to San Diego is \$10.10; while the 129-mile, 35-minute flight from Portland to Seattle is \$22.22. What explains these fare differences?

Proposed explanations

The CAB, outside experts, and the carriers have advanced a number of explanations. We have tried to evaluate the importance of each of them:

1. *Differences in the weather.*—The carriers argue that worse weather conditions in the East add to the cost of eastern flights. The Federal Aviation Agency reports, however, weather conditions cause cancellation or delay of less than 1 percent of all flights at Logan Field (Boston), La Guardia Airport (New York) or National Airport (Washington). Weather does not account for a significant portion of fare differences from \$20 to \$50.

2. *Traffic density.*—The carriers argue that fare differences arise because it is cheaper to serve routes with a high-traffic density. Although the Boston-Washington fare of \$41.67 is more than twice as high as the San Francisco-Los Angeles fare of \$18.75, nearly 7 million passengers fly between San Fran-

cisco and Los Angeles, while only 980,000 fly from Boston to Washington. The attached table however, compares Boston-Washington and other routes of varying densities with unregulated routes with less traffic density as well (e.g. Orange County-San Francisco with 300,000 passengers). Once a traffic level of 100,000 is reached, additional density seems to make little, or no cost difference. Thus, this factor is of little significance.

3. *Direction of traffic flow.*—The CAB pointed out that routes where traffic flows primarily in one direction or are highly seasonal are more expensive to operate. This factor is not relevant in the case of the routes listed on the attached table.

4. *Congestion.*—The carriers and the Board point out that routes in the Northeast are more expensive to fly because of added congestion in the air and on the ground. This factor can be measured by looking at ramp-to-ramp flight times, for added congestion, either on the ground or in the air, and will simply have the effect of delaying flights and increasing the total flight time. The attached chart allows comparisons among routes of roughly similar ramp-to-ramp times, and, again, it reveals vast fare differences between California-Texas and elsewhere (compare, for example, Boston-Washington with San Diego-San Francisco). Additionally, the CAB's tables show large differences in "fare per minute" (the fare for the route divided by the number of minutes necessary to fly it). Thus it does not appear that congestion could account for more than a small part of the fare difference.

5. *Additional labor costs, reservation system costs, higher airport costs and other interline system costs.*—The airlines argue that being part of a large system imposes additional labor, reservation system, baggage, and other miscellaneous costs on them that the California and Texas carriers can avoid. Dr. Summerfield, an expert consultant hired by the carriers' Air Transport Association, measured the cost burden that PSA—the California carrier—escapes by not being part of such a system. He estimated the burden at \$20 million per year, or approximately \$3 per passenger. This figure explains only half of the difference between the \$18 fare the PSA charges to fly San Francisco-Los Angeles and the \$26 (interstate) fare that the CAB-regulated carriers charge to fly exactly the same route.

6. *Regulatory costs.*—Several witnesses pointed out that the cost of appearing before the CAB is significant. The carriers, in their answers to the subcommittee's questionnaire, however, estimated their cost at several hundred thousand dollars per year, or a few cents per passenger.

7. *Different aircraft.*—The Board pointed out that different costs are associated with different aircraft. Since the California, the Texas, and the CAB carriers fly 727's and 737's (the CAB carriers also fly some DC-9's), the aircraft types do not appear to account for much of the fare differences.

8. *The need to support other routes in the system.*—The airlines argue that they must charge a higher price on some routes in order to provide enough revenue to subsidize service on other routes. So far, however, the airlines have not provided us with a list of routes that are so subsidized, nor have they claimed that the routes directly comparable to those in California (e.g., Boston-Washington) are routes on which their fares are significantly higher than their losses.

American has claimed that to provide turn-around service between Boston and Washington would inconvenience those passengers on the plane going beyond Boston or beyond Washington, yet, the inability to provide turnaround service would raise costs only \$4 to \$5 per passenger. This does not appear to be an inordinate amount, since, according to the CAB, 83 percent of all passengers flying from Boston to Washington get off in Washington. It is not clear why the public should have to do without turnaround service in order to save a few travelers the trouble of changing planes.

9. *Seating capacity and load factors.*—The major reason for lower costs in California and Texas seems to be that the airlines there put more seats in the airplanes and fill up more seats. For example, PSA puts 158 seats in a 727-30; American puts 121 seats in the same plane. PSA flies at a 60 percent load factor, carrying an average of 95 paying passengers in its 727-30, while American, flying at a 55 percent load factor between Washington and Boston, carries an average of 66 paying passengers in the same plane.

City-pair	Fare ¹	Miles ²	Passengers transported ³	Load factor ⁴	Block time ⁵
*Los Angeles-San Francisco.....	\$18.75	338	67,483,419	59.0	:55
Chicago-Minneapolis.....	38.89	339	1,424,621	53.1	1:06
New York-Pittsburgh.....	37.96	335	975,344	52.5	1:05
*Los Angeles-San Diego.....	10.10	109	2,518,701	52.0	:30
*San Francisco-Sacramento.....	9.73	86	505,148	41.6	:30
Portland-Seattle.....	22.22	129	1,217,381	37.3	:35
*Los Angeles-Sacramento.....	20.47	373	915,077	57.5	1:00
Boston-Washington.....	41.67	399	981,456	55.1	1:07
Cleveland-New York.....	43.52	416	910,270	59.3	1:25
Chicago-Kansas City.....	37.96	404	813,235	56.5	1:10
Chicago-Pittsburgh.....	41.67	413	972,543	52.2	1:23
*San Francisco-San Diego.....	26.21	456	399,639	60.3	1:05
Detroit-Philadelphia.....	45.37	454	313,439	48.6	1:25
Dallas/Fort Worth-New Orleans.....	44.44	442	522,223	48.0	1:15
New York-Raleigh/Durham.....	44.44	423	267,272	61.5	1:15
Columbus-New York.....	47.22	478	294,682	61.8	1:18
*Dallas/Fort Worth-Houston.....	23.15/13.89	239	1,620,000	59.1	:50
*Dallas/Fort Worth-San Antonio.....	23.15/13.89	248	980,000	59.3	:50
Las Vegas-Los Angeles.....	28.70	236	1,181,466	63.5	:50
Chicago-St. Louis.....	29.63	258	953,604	61.8	:50
*Houston-San Antonio.....	23.15/13.89	191	490,000	25.4	:40
Boston-New York.....	24.07	191	2,493,882	56.7	:50
Reno-San Francisco.....	25.93	192	312,811	58.0	:46
Miami-Orlando.....	25.93	193	514,475	40.5	:40

*Intrastate markets.

¹ Interstate markets: Coach fare. Intrastate markets: Economy fare. Source: "Official Airline Guide," Feb. 1, 1975.

² Source: Book of Official CAB Route Maps and Airport-to-Airport Mileages. Most entries are volume-weighted averages of two or more airport-to-airport mileages.

³ Source: Interstate markets—CAB service segment data, special computer tabulation, reporting period from July 1, 1973 to June 30, 1974. Intrastate markets—California PUC form 1504 report, reporting period from Apr. 1, 1973 to Mar. 31, 1974.

⁴ Revenue passengers—available seats. Entries for California and Texas intrastate markets include PSA and Southwest only. Source: same as reference 3.

⁵ Average scheduled flight time. Source: Official Airline Guide, Feb. 1, 1975.

⁶ California markets include traffic to and from suburban airports. Los Angeles-San Francisco includes 12 airport-pairs, for example:

LAX-SFO.....	18.75	338	2,984,985	59.0	:55
ONT-SFO.....	20.47	363	334,208	60.2	:55

Mr. BREYER. I would like to ask American Airlines a question.

Looking at your chart in your prepared statement, you say that you really could make a Boston-Washington commuter service pay if you had 112 passengers, roughly. Is that correct?

Mr. MALIN. Yes.

Mr. BREYER. Couldn't you put 158 seats in the plane as PSA does? You then would have a lower-load factor and it might be more practical.

Mr. MALIN. Yes; it is theoretically practical. It reduces the break-even load factor to the low seventies. But there would be offsetting diseconomies from taking a fleet of airplanes, say four 727's, isolating them to one market, and just spinning them around. Obviously those airplanes could no longer get lost in the system, so we would lose flexibility.

Mr. BREYER. Which might raise costs somewhere else.

Mr. MALIN. Could raise costs someplace else.

Mr. BREYER. Could you work out the economies?

Mr. MALIN. Thirteen out of 15 flights in these markets do go on, so all of that service would be lost. Some Boston residents desiring to get to Memphis would simply have to find some other way to do it. That is the offset, the loss in terms of public service.

Mr. BREYER. I think the best thing to do, rather than have me ask questions is simply to leave it at this. You have a set of factors and

people could submit statements for the record, unless you would like to say anything else.

Mr. MALIN. I would like to challenge your point on congestion American flies the 200-mile segment between La Guardia and Washington in 2 minutes shorter than the PSA flies Los Angeles-San Francisco. This is not comparable, in my book.

Mr. BREYER. Sorry. We had brought out differences in airborne time. If you look at the airborne plus ground times, which takes this delay into account, there is a considerable difference. We have roughly an hour and 10 minutes for the Boston-Washington segment and roughly 59 minutes for the Los Angeles-San Francisco you are right. But look at other routes where total times are about the same. There are a number of other routes which we have on our charts. Take San Diego-Sacramento and compare it with Chicago-Minneapolis. You get total times, ramp-to-ramp times, and still the fare looks about two-thirds as high.

Dr. EHRLICH. Did you calculate what you would expect to be the cost differential simply because of the speed factor and block-to-block times in the PSA route?

Mr. BREYER. We tried to do that. As you know much better than I do, it is extraordinarily complicated. We have all kinds of different numbers. I will give you copies of all the tables. You will have these numbers, and I am sure that there are lots of arguments about them. I think the way to proceed is by written dialog.

Dr. EHRLICH. I would strongly urge that you make a very specific attempt to make that calculation, because what you will find is that most costs are based on block-to-block times. The simple fact that an airplane is forced to fly a lot slower, 200 miles relative to 350 miles, causes the cost increment to increase very, very substantially.

Mr. BREYER. The operating costs of the airplane comprise only one portion of it.

Dr. EHRLICH. I think you will find on a block-time basis that the differential would run into several dollars of cost.

Mr. BREYER. Would you work something out?

Dr. EHRLICH. The other point I would urge you to consider is the differential in landing fees among the airports.

Mr. BREYER. We have that.

Dr. EHRLICH. Based upon landing fees in the PSA operation relative to the east coast corridor is roughly 30 to 35 cents difference per passenger.

Mr. BREYER. Exactly. I think Dr. Summerfield had that in his testimony.

Dr. EHRLICH. I think another element makes a big difference, roughly a half dollar per passenger is the difference in pilot pay in the PSA relative to the trunk carriers on the east coast, and that adds roughly another half a dollar increment.

Mr. BREYER. I would ask Mr. Murphy if you would submit written testimony? Would you like to come up?

Mr. MALIN. Before we step down, one clarification. The Senator was using an operating factor which is percentage of miles completed. That is quite different from delay. Of our operations at La Guardia, 50 percent are delayed to some degree. They may all complete their trip, but it is delay factor that is important.

Mr. BREYER. Do you think it is fair to look at routes that have roughly the same ramp-to-ramp time? It seems to me that is a reasonable way to take delay into account? Do you think so?

Mr. MALIN. Yes.

Mr. BREYER. All right. So we find on fairly comparable routes the fares are still——

Dr. EHRLICH. When you consider the implications of on-time performance and the costs——

Mr. BREYER. That should show up in ramp-to-ramp time, should it not.

Dr. EHRLICH. On a performance basis?

Mr. BREYER. Yes; on a performance basis.

Mr. SHIPLEY. Mr. Breyer, I would like to note in connection with your request that we submit written statements on this. Delta certainly will do its best, and if the information is available, or can be made available without undue burden, we will submit a response.

Mr. BREYER. Thank you.

[The prepared statements of Dr. Ehrlich, and Messrs. Randall Malin, and Morris Shipley follow:]

PREPARED STATEMENT OF DR. MORTON EHRLICH

The topic of today's hearings has been listed as "Comparison of State and Federal Regulation of Airlines and Comparison of State Air Fares with Interstate Air Fares." The major domestic markets, both long-haul and short-haul, served by Eastern Airlines are in interstate air transportation. Eastern, unlike some of the other Federally-certified carriers, is not authorized to serve any significant intrastate markets, such as Los Angeles-San Francisco on the West Coast or Dallas/Fort Worth-Houston within the State of Texas. For these reasons, insofar as its own operations are concerned, Eastern is not a carrier that is in a position to discuss any comparison of differences that may exist in the State and Federal regulation of air transportation markets, particularly with regard to air fares.

The air fares in Eastern's domestic interstate markets are regulated by the Civil Aeronautics Board under the powers granted to that agency in the Federal Aviation Act by Congress. This is one of the major regulatory functions of the Board and one that has been the subject of intensive proceedings before the Board in recent years. In 1970, the Board instituted the Domestic Passenger Fare Investigation to determine the policies and standards that should be followed by the Board in its review and regulation of domestic air fares. The guiding criteria laid down by Congress to be followed by the Board in completing this large task are set forth in the Declaration of Policy (section 102 of the Federal Aviation Act) and the Ratemaking Standards (section 1002(e) of the Act). In simplified terms, the job of the Board is to determine the revenues needed by the carriers to cover their costs (including a reasonable return on investment) so they can offer the services that are required by the public interest.

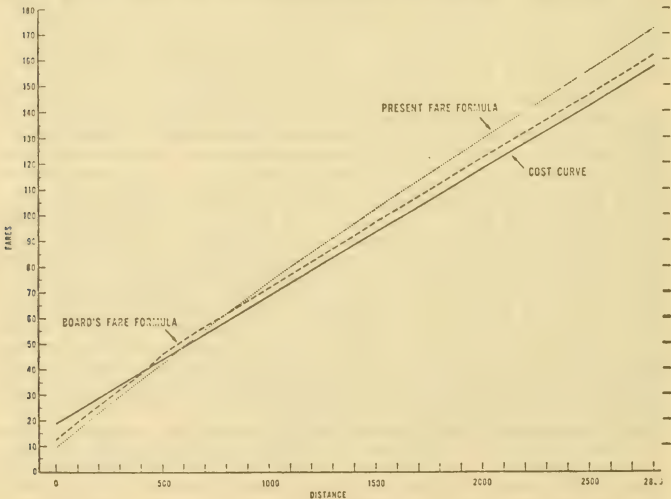
The Board is just now completing the final phases of the Domestic Passenger Fare Investigation. In one of its phases, the Board has determined the overall fare level need of the carriers (based on such standards as load factor, seating configuration, depreciation, rate of return, etc.). The Board has then translated this overall revenue need into a fare structure, which produces fares in individual markets varying by length of passenger haul (with a downward taper in yield per mile as the length of haul increases). This is illustrated in the attachment, which is a chart from the Board's decision in Phase 9 of the DPFI, showing how the Board's fare formula relates to the cost of service at various lengths of haul. While the fare formula does not "track" the cost curve precisely, the basic objective of a cost-related fare formula is achieved. It is of interest that the Board's fare formula in markets of approximately 400 miles or less produces fares that are less than costs at these distances.

While, as indicated above, Eastern does not operate in any major intrastate markets, we are aware of fare comparisons that are sometimes made between the interstate markets in the Northeast corridor (e.g., the New York-Boston and New York-Washington markets served by Eastern) and the intrastate service between Los Angeles and San Francisco. First of all, it must be understood, as

stated above, that under the Federal regulation of interstate markets, fares in individual markets are not set in isolation. The objective of the Board is to establish a basic formula that will produce a rational integrated fare structure for the entire interstate route network where a single market or group of markets is not favored to the detriment of other markets. It is this overall nationwide fare formula that produces Eastern's fares in the Northeast corridor. Specifically, the fares on the air shuttle in the Northeast corridor are precisely equal to the basic coach fare produced under the Board's formula.

Beyond this, there are other factors which demonstrate that it is not possible to make an uncritical comparison of the Northeast corridor interstate fares and the intrastate Los Angeles-San Francisco fares. There are a number of substantial differences in these two operations which are a continent apart. For example, such factors as weather and aircraft traffic congestion are not comparable. There is a substantial difference in the speed at which the aircraft operate in the two services. While the Northeast corridor stage lengths New York-Boston (185 miles) and New York-Washington (214 miles) are shorter than Los Angeles-San Francisco (347 miles), the published travel times are the same (1 hour). This means that Eastern's jet aircraft are able to attain average speeds of only 185 m.p.h. (New York-Boston) or 214 m.p.h. (New York-Washington) compared to 347 m.p.h. between Los Angeles and San Francisco. This is important when it is remembered that labor costs are incurred by the hour, a factor which is further compounded by the rate differentials for employees that exist between Eastern's service and the intrastate operations on the west coast. In addition, there are different landing fees in the two services, with a rate of \$1.45 at La Guardia compared to \$0.40 at Los Angeles per 1,000 pounds landing weight. On an annual basis this amounts to \$1,800,000.

In conclusion, Eastern believes that the air shuttle services in the Northeast corridor are an important public service in these markets. The service has been used by over 36 million passengers since its inception and the no-reservation back-up section feature has been well received by the public. In this regard, it is important to note that the air shuttle is conducted in a highly competitive environment, with 12 airlines having authority in the corridor, four of them on an unrestricted basis. Thus, the air shuttle competes against other carriers in the market, including those operating on a conventional reservation, two-class service. It is up to the public to make its choice of the types of service in these markets. There is abundant authority in the markets that enables the carriers to offer the public whatever services they desire at fares consistent with the coach fares derived under the Board's industrywide fare formula.



PREPARED STATEMENT OF RANDALL MALIN

1. It is our understanding that the purpose of this phase of the subcommittee's hearings is to discuss the costs of a commuter-type air service in the Boston/New York/Washington corridor, and to determine if there is justification for fares in these markets to be different than those offered by intrastate carriers such as Pacific Southwest Airlines (PSA) in the Los Angeles-San Francisco market.

2. For purposes of this inquiry, American has appended detailed estimates of operating service in two of the Northeast corridor markets, Boston-Washington and New York-Washington.¹

3. Exhibit 1 estimates the costs to American for the type of operation it conducts today in these two markets. Exhibit 2 estimates the costs of conducting a commuter-only operation confined to the carriage of local traffic. For purposes of determining a break-even passenger load factor in the Boston-Washington market, we have used the revenue yield per passenger-mile derived from the fare offered by PSA between Los Angeles and San Francisco. In the New York-Washington market, we have used PSA's dollar fare (\$18.75) because the scheduled block-to-block time is approximately the same as that for Los Angeles-San Francisco.

4. Costs are divided into five major areas: Flight and maintenance, servicing and handling, advertising and sales, administrative overhead, and aircraft ownership. Costs reflect American's actual experience for the type of operation now conducted by American in these two markets. Applying the PSA fare level to these markets, the break-even load factor on a fully allocated cost basis (with no allowance for a proper rate of return) would be the following:

	<i>Percent</i>
Boston-Washington	130.6
New York-Washington	137.2

5. Exhibit 2 estimates the reduced costs if American were to offer a pure commuter operation, carrying only local traffic (excluding interline and intraline passengers moving beyond the terminals of the Boston/New York/Washington corridor). In computing these costs, we have reduced American's experienced unit costs in the following areas:

Reservations/ticketing	68 percent reduction to reflect reduced time of reservations and ticketing agents in handling simple point-to-point passenger routings.
Baggage handling.....	50 percent reduction to reflect reduced volume of baggage of commuter traffic.
Catering and food service.....	100 percent reduction to reflect elimination of free amenities.
Agency commission.....	43 percent reduction in travel agent commissions to reflect PSA experience
Wage scales/work rules.....	No change.

6. After adjusting costs for these savings, American estimates the following break-even load factors for a commuter-only operation (costs do not include an allowance for a proper return on investment):

	<i>Percent</i>
Boston-Washington	92.6
New York-Washington.....	93.4

7. In your consideration of whether it is feasible to obtain lower fares in these markets with a commuter-only operation, it should be borne in mind that such an operation may well result in less service for those passengers traveling beyond

¹ The routes are comparable to Los Angeles-San Francisco. The distance between Los Angeles and San Francisco is 338 miles. The distance between Boston and Washington is 399 miles. While the distance between New York and Washington is only 214 miles, American's 58-minute block-to-block scheduled time on this route is almost identical to PSA's 60-minute scheduled time between Los Angeles and San Francisco. The relatively slower travel time between New York and Washington is related to ground and air congestion that affects operations in the Northeast corridor. For example, approximately 50 percent of American's operations at La Guardia Airport are subject to some ground or air traffic delay, as compared with approximately 20 percent for American's operations at Los Angeles and San Francisco.

the Boston/New York/Washington terminals.² American's local flights to and from Boston now carry the following percentage of passengers moving beyond the Boston/New York/Washington terminals:

	Percent
Boston-Washington (National)-----	26
New York (La Guardia)-Washington (National)-----	30
Boston-New York (La Guardia)-----	41

Since American's schedules today are supported by a combination of local traffic and through and connecting traffic, any loss of local traffic would undermine the economic soundness of American's through and connecting service at an affected terminal. In all likelihood, the amount of through and connecting service offered by American would have to be reduced. This result, in our view, would be detrimental both to the general public and to the airline industry.

EXHIBIT 1.—SHORT-HAUL OPERATING RESULTS AT INTRASTATE FARE LEVEL
[Average one-way]

	Boston- Washington	New York- Washington
Passenger revenue at 100 percent load factor-----	\$2, 678	\$2, 269
Expenses:		
Flight and maintenance-----	968	771
Servicing and handling costs-----	870	837
Advertising and sales-----	831	743
Administrative and overhead-----	234	189
Aircraft ownership-----	246	184
Total-----	3, 149	2, 724
Net earnings-----	(471)	(455)
Additional passengers required to break-even-----	37	45
Total passengers required to break-even-----	158	166
Seats available-----	121	121
Break-even passenger load factor (percent)-----	130.6	137.2

EXHIBIT 2.—SHORT-HAUL OPERATING RESULTS AT INTRASTATE FARE LEVEL AND MODIFIED COST STRUCTURE
[Average one-way]

	Boston- Washington	New York- Washington
Passenger revenue at break-even level-----	\$2, 476	\$2, 124
Expenses:		
Flight and maintenance-----	968	771
Servicing and handling-----	648	631
Advertising and sales-----	380	349
Administrative and overhead-----	234	189
Aircraft ownership-----	246	184
Total-----	2, 476	2, 124
Net earnings-----		
Passengers required to break-even-----	112	113
Seats available-----	121	121
Break-even passenger load-factor (percent)-----	92.6	93.4

BIOGRAPHICAL SKETCH OF RANDALL MALIN, VICE PRESIDENT, MARKET PLANNING, AMERICAN AIRLINES, INC.

Randall Malin is vice president of market planning for American Airlines, Inc. In this capacity he is responsible for American's marketing strategies and plans.

² In Boston, for example, all eight of American's daily flights to La Guardia continue on from New York, providing one-stop service from Boston to St. Louis, Detroit, Toronto, Dallas/Ft. Worth and Memphis. Five of the seven daily flights from Boston to Washington continue on from Washington to Indianapolis, Memphis and Cincinnati.

Mr. Malin has worked for American since 1961 and has held the positions of director of economic research, assistant to the president, director of marketing plans and assistant vice president market planning. He was elected vice president of market planning and schedule development in June 1970, and a year later became vice president of passenger market plans. In January 1973 he was elected vice president of resource planning. He assumed his present position in September 1974.

Throughout most of the period from June 1970 through September 1974, Mr. Malin was directly responsible for American's passenger fares and schedules. He also negotiated all of American's capacity restraint agreements.

Mr. Malin is a graduate of Dartmouth College, and he holds a master's degree from Dartmouth's Amos Tuck School of Business Administration.

PREPARED STATEMENT OF MORRIS SHIPLEY, DELTA AIR LINES

Delta has previously explained to the subcommittee's staff why our company is not in a position to contribute meaningfully to the hearings with respect to "shuttle" or other mass-market low-cost services in the northeastern, and particularly in the Boston-Washington areas. As we understand it, the subcommittee hopes to explore the reasons why a service comparable to that conducted by Pacific Southwest Airlines (PSA) within the State of California has not developed between major northeastern cities, either as a separate "subsidiary" operation by one of the carriers presently serving the markets, or by some new carrier. Aside from the matter of service frequency, which will be discussed, the basic questions here are whether such a service could operate at lower fares than those now obtaining in the markets which, in turn, involves questions of cost/revenue relationships in the Boston-Washington and other northeastern markets.

First, however, it should be noted that if the reference to PSA-type service means turnaround service confined to a particular market and operated with high frequency, northeastern area markets have had—and at least one, New York-Washington still does have—service comparable in these respects (and superior in terms of backup equipment) to the PSA Los Angeles-San Francisco service, which is that carrier's major operation. We here refer to the Eastern Air Lines "shuttle" which previously served the Boston-Washington as well as the New York-Washington market. Initially Eastern's fares were lower on this service than on some other services, and both this historical fact and the present situation with respect to the shuttle undoubtedly can be expanded upon by Eastern. Delta is not in a position to comment on the marketability and economic results of this service.

The basic reasons why Delta Air Lines is not in a position to contribute meaningfully to discussion of the various causative factors relating to the possibilities for a northeastern area PSA-type service are as follows:

1. Delta is a relative newcomer to the Boston markets, and in terms of unrestricted authority is also a newcomer to the remainder of the northeastern area markets (those between Washington, Baltimore, Philadelphia, New York, Hartford and Boston).

Delta acquired its first Boston and Hartford authority on August 1, 1972, when it and the former Northeast Airlines merged. Prior thereto Delta held authority only in the markets between Washington, Baltimore, Philadelphia and New York, which authority was long-haul restricted in the sense that any flight serving two or more of these cities could not turn around or shuttle between them, but was required to also serve specified cities in the southeastern and southwestern portion of the nation. (This requirement was imposed because Delta was certificated for purposes of connecting the Southeast and Southwest with the Northeast, and the CAB directed that Delta's efforts be concentrated on the development of this inter-regional traffic.)

Since the merger Delta has been able to combine Washington-Boston service with Delta's Washington-Southeast/Southwest services, but has been prevented from significantly increasing the volume of Washington-Boston service previously operated by Northeast, and from seriously considering a shuttle or other turnaround or PSA-type service because of the following overlapping and compounding circumstances:

- (a) Delta was unable to assimilate the former Northeast and Delta systems from a scheduling standpoint until December of 1972/January 1973. It was neces-

sary, of course, to conduct the combined operation as initially structured for a period of time in order to gain experience and to allow sufficient time to achieve post-merger integration of the various employee groups of the two carriers, before altering the pattern significantly. Before this initial trial period expired the fuel crisis hit. While official governmental regulations based on the fuel crisis were issued in October of 1973, Delta was feeling the effects of the coming crisis even before that time. Because the airlines, more than virtually any other segment of the economy, have been subjected to reduced fuel allocations and fuel deliveries (the airlines remain limited to an allocation of no more than their 1972 fuel consumption despite the carriers' critical importance to the U.S. commerce), and because fuel costs have rapidly escalated, the fuel crisis—and the following factor—have resulted in Delta's barely hanging on in the Washington-Northeast markets with essentially the initial post-merger pattern.

(b) The preferred airport at Washington for Boston and for most medium-haul services is Washington National Airport. The airport, however, has not been expanded for many years. This circumstance, together with the results of environmentalists' protests, has precluded the use of four-engine jet and wide-bodied aircraft at Washington National Airport, and has severely restricted the number of daily jet operations which can be conducted with any type of aircraft. For safety and other reasons, the carriers have been limited by the FAA to a maximum of 40 movements per hour for all carriers combined, with a total ban on all jet operations between 10:00 p.m. and 7:00 a.m. Since this ban was initially imposed, adjustments in the timing of each individual carrier's flights and its number of operations in any particular hour have been made from time to time on a regular, recurring basis, under a cooperative arrangement authorized by the Civil Aeronautics Board, in order that the best overall public service can be provided at that airport. But this necessary restraint on use of Washington National Airport effectively puts a lid on the number of services which Delta and other airlines can operate in the Washington-Boston market, or in any other Washington market.

The slot problem manifests itself not only in a physical inability to land additional flights at the preferred Washington National Airport, but in an effective continuation of Delta's prior long-haul restriction north of Washington. Thus, while Delta inherited Northeast's unrestricted turnaround authority in the markets between Washington, Philadelphia, New York, Hartford and Boston, the merger also placed service obligations on Delta between Boston/Hartford and points on the former Delta system in the Southeast, via Washington or one of the other northeastern cities. At the same time, of all the carriers serving Washington National Airport, Delta has the fewest number of slots save only one other carrier.¹ These circumstances combined have necessitated discharge by Delta of both its Washington-northeastern city and Washington-southern city local service obligations, and its through service Boston/Hartford-south service obligations, with single-plane services in most instances between the New England points and the South via Washington. This, in turn, has prevented a PSA-type turnaround operation north of Washington, and made a study of such an operation impractical.

2. Northeast as never able to operate an hourly service between Boston and Washington, so there is no experience upon which Delta can draw in this respect. Furthermore, the former Northeast Airlines officials who were in charge of that carrier's scheduling and fares are not now associated with the merged company. Whatever records of premerger scheduling and fare development might have existed at one time no longer exist, to the best of Delta's information and belief.

3. Delta has not made studies of the feasibility of conducting a PSA-type service. As noted above, prior to the Delta/Northeast merger on August 1, 1972, Delta was long-haul restricted in northeastern markets. There are no other areas of Delta's system that have the combined features of medium length/high traffic volume² which are normally viewed as prerequisites to a PSA-type service.

The PSA-type service is claimed to have two benefits—high frequency and somewhat lower fares than are normally available on regular interstate carrier service (the latter comparison is usually made between the PSA daytime fare

¹ Delta, for example, has only 32 slots, while the other three carriers certificated in the Boston-Washington market have a much larger number: Allegheny 88, American 70, and Eastern 136.

² The Boston-Washington market is many times smaller than PSA's Los Angeles-San Francisco market.

and the interstate carriers' normal daycoach fare, and ignores the substantial savings available on the latter carriers from various promotional fares and the daily 20 percent reduced off-peak fares offered by carriers such as Delta). As explained above, the high frequency of service can equally be made available by operations through the market, and this factor has thus not called for study of a PSA-type turnaround service. A study from the standpoint of fares has not been feasible as long as the CAB's comprehensive Domestic Passenger Fare Investigation has been pending, as it has since 1970 (the complexity of this massive investigation necessitated such an extensive period of time). Until the DPFI is fully completed (it is still subject to pending court appeals, and is subject to additional court review) Delta is not in a position to know whether it would be possible to charge a lower fare for a PSA-type service than that prescribed by existing law and CAB decision and regulation. This circumstance, too, has made it impractical to study a "PSA-type" operation.

It is for the foregoing reasons—and particularly Delta's limited experience with the Washington-Boston market (and with any northeastern market, except on a long-haul restricted basis)—that Delta has not made any study of a PSA-type operation in northeastern markets, and cannot contribute meaningfully to the subcommittee's discussion of this particular matter.

Mr. BREYER. The next witness is Mr. Charles Murphy, representing the Texas Aeronautics Commission. Mr. Murphy is an attorney and a pilot and has been executive director of the TAC since September 1965. Mr. Murphy is also chairman of the air transportation subcommittee of the National Association of Regulatory Utility Commissioners. I would like to welcome you to these hearings.

Thank you very much, Mr. Murphy and I apologize for the delay this morning.

STATEMENT OF CHARLES MURPHY, EXECUTIVE DIRECTOR, TEXAS AERONAUTICS COMMISSION

Mr. MURPHY. If you would permit me, I would like to deviate just a little bit from some of the testimony, and that is why I said that I would like to make an oral statement rather than submitting only the prepared statement, because some of the testimony here, I think, brought up some questions that I would like to respond to or have something to say about.

STATE REGULATION IN TEXAS

I view this situation maybe from a position that is a little different from most of the people. I happen to be director of a State agency that performs two functions. It performs not only the regulatory function performed by the Civil Aeronautics Board, but also the system development functions as performed by the FAA.

I am very conscious of the fact that without a system to operate over, the finest regulatory policies in the world would be ineffective. I think that the air transportation system over which these commercial carriers are now operating lacks a lot.

I would from my prepared statement like to read to you just a sentence that I put in a letter in 1966 to then Governor Connally of Texas. After having made a previous statement I said:

That has been equally frightening and painful to see that in the field of air transportation governmental responsibilities of the states and their aviation agencies are little studies, carelessly approached, unbelievably misunderstood and neglected.

This results in not an economic question, but a political question. In any given area or in an industry, if you have only one organized and well finished group, other less organized less finished, their voice is relatively weak, then obviously the policies of the well organized, well finished group are going to prevail, such as in the case of the aviation industry. ATA is the only well finished, well organized aviation group.

There is another political question that comes up, and that is that all regulatory agencies tend to be neglected by their creating agency, whether it be Congress or the State legislature. The moment that the President or the Governor signs a bill and says we have now created a regulatory agency to solve our problems that agency then comes under a tax and just by the mere fact that it associates only with the people that it regulates, it loses contact with the public and the media, and it begins to move in a direction as becoming responsive to and in some instances almost captive of the industry it regulates, which brings me down to the question of what you want to ask me. Why have you been able to have cheaper rates in Texas?

Mr. BREYER. Have you been able to have cheaper rates?

Mr. MURPHY. I think so.

Mr. BREYER. How much cheaper have they been?

Mr. MURPHY. Well, as you have said here, they vary from as much as one-half to two-thirds of CAB regulations.

I would also add that the only unregulated fare in Texas is the intrastate fare charged by the CAB carrier. The fares charged by the intrastate carrier, regulated by the Texas Aeronautics Commission, are regulated. The intrastate fares of the CAB carriers are unregulated, which poses a problem for us where our carriers are roughly in competition with the CAB carrier.

Mr. BREYER. You have lower fares, and why is it you think they are lower?

Mr. MURPHY. Well, they are lower because, beginning with Governor Connally and following through with Governor Smith and now with Governor Briscoe, for the first time there were men appointed to the Texas Aeronautics Commission who were not appointed to that Commission because of their previous aviation background. They came in as knowledgeable men. Today, Governor Briscoe has recently appointed a gentleman who does not fly, it is not a pilot, he does not own an airplane, and to be purely frank about it, he doesn't like to fly.

Mr. BREYER. Well, I think the CAB—the profits are not enormous, they are not making heaps of money.

Mr. MURPHY. I am not saying that is it. I am only trying to get around to the point that these gentlemen, when they accept the same facts and figures that are presented to them for their ultimate decision as are presented to the Board members of the CAB or any other regulatory body, and they are presented with voluminous records, that the only difference between them and another regulatory agency is that they may tend to put into their final decision maybe a little greater factor of public opinion.

REASONS FOR SOUTHWEST AIRLINES' SUCCESS

Mr. BREYER. Are the load factors higher in Texas?

Mr. MURPHY. They are. The load factors are very high. They do have a very high-load factor. They have it for a number of reasons.

One reason that has been overlooked today is you have the system in California that you have because of the availability of the airports to operate out of, three out of the bay area to five in the Los Angeles area, an accessibility of service, people wanting to go where they want to go. They can go from any one of three to any one of five.

In any opinion, what makes Southwest so successful in Texas, it is able to operate from the close-in and convenient Love field in Dallas and the close-in Hobby field in Houston.

I was just going to say this is one of the three factors that makes the Southwest operation attractive to the consumer. It is convenient, and it is cheap. Now, Southwest is doing an unusual thing, partially because of the flexibility that the Texas Aeronautics Commission has permitted them to have in trying to arrive at a fare structure which would be attractive to the public. They now have a dual-fare system. I don't know whether you are aware of it or not, but that is the \$25 flights from say 8 a.m. to 5 p.m. or 6 p.m., but any flight originating before 8 in the morning and after 6 in the afternoon is what is called a pressure class; it is a \$15 flight.

I would suggest to you that someone from the Senator's staff visit the airports and observe the difference in the appearance of the people who utilize the \$15 fare as opposed to the \$25. These people are people who are coming to the airline instead of going to the bus. It is almost like they are getting ready to takeoff on some of the late flights and you kind of wait for them to tie the chicken coop on top of the airplane.

Mr. BREYER. We have about 5 or 7 million who go by car.

Mr. MURPHY. Southwest Airline is obviously competing with the automobile, there is no doubt about that. There are other factors permitting it to be cheaper than those named here, not only the ticketing and baggaging and what have you, the terminal costs, these people proceed to get a ticket and get on the plane. You don't need a vast terminal. They are not sitting around waiting for a flight 5 hours from now. The bar at Love field is a little table about like this with a few bottles of whiskey sitting over in the corner. All they have is a cafe, a restaurant, that really is for the people who work there, not for the passengers who are coming there. It is purely a service-oriented activity, and maybe evidence to the contrary, nobody is holding any gun to anybody's head, making them use that service. They are using it because it is a cheap, efficient, economic service. That is a high-density market.

I have heard the term used over and over again that Southwest moved into a high-density market and that has been called cream skimming, that we came in and skimmed the cream off the market. In a most recent presentation just last week before the Texas Aeronautics Commission oral arguments were made into Southwest extension into the market for the whole valley is about 130,000 passengers, 180 this year and it is a relatively much smaller market and they are going into it because of the tourist attractiveness and trying to stimulate a tourist business.

Mr. BREYER. They are making money on that route?

Mr. MURPHY. They have just started.

Mr. BREYER. They expect to make money?

Mr. MURPHY. They expect to stimulate the market to the extent they will make money.

Mr. BREYER. Are their fares lower?

Mr. MURPHY. Oh, yes. They will make it attractive, hopefully, according to the Southwest, where people would go from Dallas or Houston or San Antonio to the valley over the weekend for maybe just a few days on the Mexican border as a tourist, on a weekend vacation, which is not unattractive because of the fare.

But I wanted to say in response to cream skimming, I must give credit to the attorney for Southwest. He said the cream skimming indicates that milk is set and cream has come to the top and skimmed milk has gone to the bottom. He said we are not cream skimming, we are actually milk dipping. They are going down into the bottom of the market.

I would like to show you some exhibits which were used in this proceeding. These are the latest we have. Others will be made available to you. This will show you how the market was stimulated, how Southwest came into the market.

RELATIONSHIP BETWEEN TEXAS REGULATION AND CAB

Mr. BREYER. Is there any particular problem that arises because of the CAB's jurisdiction and your jurisdiction? Does it overlap?

Mr. MURPHY. It does not overlap. Our only problem is that the CAB certificated carriers maintain that although intrastate fares are not subject to CAB regulations that our state law, by language within our law, prevents us from regulating their fares.

So the problem is that we have some difficulty in regulating Southwest when a competing carrier is unregulated in the market. It is a matter which the CAB could settle, I think, rather easily. The CAB has created problems for us, I would think more with maybe what is called the air-taxi exemption than with anything else. This poses a problem and will pose an even greater problem when the 30-passenger airplanes come on the market.

I think that the disastrous effect of the air-taxi exemption was that it made the aircraft manufacturer design an airplane to meet an artificial weight limit rather than to serve a need of the public, and this I think has hurt air transportation in the small communities.

Mr. BREYER. I don't have any further questions.

Mr. MURPHY. I would like to leave you here. I do not have an official document, but I do have a letter saying this is on file today with the Texas legislative reference library. It is a report of a special subcommittee.

Mr. BREYER. There is one question I will ask you, and that is, there has been legislation proposed to extend the CAB's jurisdiction or maybe regulations into California and Texas. What is your view on the merits of that?

Mr. MURPHY. I think that in order to develop the air transportation system in the way that I visualize and hope it will be developed in the future and to be made accessible and available to the public, which in my part of the country now is not because there are people there 200 miles from air carrier service, maybe 250 miles from air carrier service—I think that that only—well, in order to establish this system will take the utilization of a very sophisticated form of Government and we do have a sophisticated form of Government, our three levels of Government, and if they each accept their authority and fulfill their authority, and their responsibility, it will mesh together. I

think to cut out one level or two levels of it and give it all to one really defeats the purpose and the utility value of this unusually fine system of Government we have that has built the highways and surfaces. If we work together we can build an air transportation system. But if we permit it—the airport thing was going to a critical point, and passed the airways account. It failed. Now they come forward with recommendations which are going to even exasperate that situation. If you are not aware of the failure of the State governments to participate in the building of airports if you don't begin to use a carrot and stick approach to encourage the States to become more involved and to destroy the myth that the Federal Government has preempted everything in aviation, your study into regulations is not going to be as meaningful as you hope it will be.

Mr. BREYER. Thank you very much.

Mr. BREYER. We will recess until Tuesday in Washington.

[Whereupon at 1:05 o'clock p.m., the subcommittee adjourned, subject to the call of the Chair.]

[The prepared statement of Charles A. Murphy and charts referred to follow:]

PREPARED STATEMENT OF CHARLES A. MURPHY

Mr. Chairman, I am deeply grateful to you and to the other members of your committee for this opportunity to express my views on the regulatory policies and procedures as they affect air transportation. I would like to think that the findings of this committee will help produce a new era of cooperation between federal and state authorities on matters of mutual concern in air transportation.

I have taken the liberty of looking over the list of other witnesses appearing before you and, in deference to the great demands upon your time, will try to avoid duplicating the testimony you are likely to hear from them. Instead, I would like to bring to your attention some of the air transportation regulatory problems which have become evident to me in my position as executive director of the Texas Aeronautics Commission.

First, let me say that the Texas Aeronautics Commission was created in 1945 and has jurisdiction over air carriers operating within the State of Texas but outside the scope of air transportation as defined in the Federal Aviation Act. Under our law, we issue certificates of public convenience and necessity to such air carriers when we find that their proposed service is in the interest of public convenience and necessity.

One of the provisions in the act creating our Commission declares, and I quote: "In determining the existence of a public convenience and necessity for a proposed air service, the Commission shall consider the encouragement and development of an intrastate air transportation system properly adapted to the present and future needs of the State of Texas, and in addition shall consider the financial responsibility of the air carrier, its proposed routes and rates or charges; the effect, if any, upon existing air carriers and CAB certificated carriers, and any other factors similarly related to public convenience and necessity. . ."

On both the state and federal levels, we obviously face some difficult and complicated problems. However, I believe that many of these problems require relatively simple solutions—if we work together.

When I came into this business about 10 years ago, my first impression was one of shock. I was shocked to realize that the state level of government had such vast responsibilities for developing and regulating an air transportation system and was doing so little to fulfill those responsibilities. I began investigating and found that most states were not doing anything in this area simply because a myth had been perpetrated on the Congress, on state legislators and on the public. That myth was that the Federal Government had pre-empted all matters pertaining to aviation—and this is not true. It was not true then and it is not true now. But the major airlines had organized and they were able to sell this idea simply because they were the only substantial, well-financed voice within aviation. Their resources and organizational skills have enabled them to make their policies the policies of the aviation industry and its main regulatory authority. In effect, the CAB has created a political power which has also been highly successful in thwarting the efforts to establish effective state regulation

and state development of air transportation facilities. The CAB should be aware of this activity and should denounce it.

About one year after I joined the Texas Aeronautics Commission, I wrote a letter, dated Aug. 29, 1966, to then Gov. John Connally, giving him some of my observations. In that letter, I said, and I quote: "From the vantage point of director it has been exciting and stimulating to watch air transportation as it proceeds in its fantastic transformation from a relatively superficial adornment of Texas life into a basic industry so vital that the State's economy could neither exist in its present form, nor hope to progress, without it. It has been equally frightening and painful to see that in the field of air transportation, governmental responsibilities of the States and their aviation agencies are little studied, carelessly approached, unbelievably misunderstood, and, as a result, neglected."

That statement was made in 1966. During the succeeding years, I think I have gained a better understanding of the basic problems but they really are about the same now as they were then. And they boil down to the failure of the states and the federal government to participate fully, as partners, in the development of a truly adequate air transportation system.

We talk about regulating the airlines—but regulation seems somewhat futile when we do not have an adequate airport system upon which they can operate. We simply do not have the airports necessary to meet the demands and needs of the public. We might as well try to regulate trucks without providing the highways for them to use. It's almost like the old chicken-and-egg dilemma but both California and Texas have demonstrated that adequate, convenient airport facilities can lead to high public acceptance of airline service on a short-haul basis.

In California, for instance, a person leaving the San Francisco Bay area can depart from a number of airports. And he can fly from there to any one of several commercial airports serving the Los Angeles area. This flexibility makes air transportation feasible for a great many people, particularly those involved with one-day business trips. Love Field—located not far from downtown Dallas, and Hobby Airport, in Houston—are more attractive to many people than are the new Dallas/Fort Worth, and Houston's Intercontinental Airport. Businessmen save a great deal of time by using the airports which are closer to the business districts. And there are some airline passengers who cannot afford excessive ground transportation, such as a \$15 taxi ride or even a \$4 bus fare. The long-haul passengers, traveling to such distant points as Washington, New York, San Francisco or Los Angeles, do not seem to mind the time it takes them to reach the Dallas/Fort Worth or Houston Airports.

Incidentally, it seems to me that the long-haul, glamor flights always are at "Gate 1," or whatever the nearest gate happens to be, while short-haul passengers find their planes at the most distant gates. This seems rather typical of industry practice, actually; the short-haul passengers generally get the short end of the stick—and the longest walks.

Texas has more places to land airplanes than any other state in the nation and yet it still is woefully short on convenient airport facilities—with the need continuing to grow. Recent forecasts indicated that, by 1990, Texas will need airport facilities to accommodate twice as many aircraft, four times as many passengers, and ten times as much air cargo as we handle now.

In 1970, Congress passed the Airport and Airways Development Act, with high hopes. Unfortunately, it has failed because the federal government preempted many of the tax sources from which local communities might have been expected to get revenue for the necessary matching funds. As that Act now stands, it enables the rich to get richer while the poor get poorer; it lets the big get bigger while the small get smaller. Some of the amendments now being proposed would make the situation even worse. To me, it does not make sense to give \$290 million in federal funds to the big, money-making airports to use as they see fit, when we so desperately need so many new airports. There is no way any changes in regulatory procedures could make up for the harm this would do and for the service it would deny to so many potential passengers.

Instead of keeping pace with the growing demand for new airport facilities, we are letting the development of bigger, faster airplanes accelerate the obsolescence of our present airports. When the CAB was created, one of the first things it did was grant an "air taxi" exemption, exempting from certification requirements all passenger planes weighing less than 12,500 pounds. For many years, that discouraged aircraft manufacturers from developing planes to meet the real needs, because there was great demand for these smaller planes which could qualify for CAB exemptions. For years, we were making planes that carried about 15 passengers, with the next largest size a plane that carried

about 100. There was no in-between, such as a 40- or 50-passenger planes that could serve a great many small communities and operate on the vast majority of our airports.

Instead of building planes to fit our airport system, we started building bigger and faster and heavier planes, and sending every airport manager in the country racing down to his city administration, asking for the issuance of another \$50 million in municipal bonds to lengthen and strengthen runways. The tail wagged the dog, and we kept modifying the system to fit the equipment, when it should have been the other way around. This was almost like encouraging truck manufacturers to build wider and wider trucks, then trying to rebuild the entire highway system to accommodate the king-size versions.

The 727, for instance, is a beautiful, money-making problem. Simply because it has only four main wheels and thus a very high weight per square inch on each of them, it has cost the airports in this country millions of dollars in repairs to runways and parking areas.

I believe that the CAB and the states should cooperate in the regulation of all common air carriers, regardless of aircraft size. The CAB should work with the appropriate state agencies, not against them. We should have something of a partnership arrangement instead of the adversary relationship which now exists.

I mentioned earlier the shock I felt when I became director of the Texas Aeronautics Commission about 10 years ago and recognized the magnitude of our problems. It did not take long for me to realize that we had many problems in common with the CAB—and to foresee the likelihood of problems that would involve some of the major airlines. Early in the game, I made a number of visits to the CAB to discuss these problems; my reception there always was very cool. No offer of cooperation ever was made, even though the Federal Aviation Act provides for the CAB to cooperate with and participate with state regulatory agencies.

It seemed to me that this was a rather curious stand for the CAB to take but some light was shed upon it in July, 1970, when John H. Crooker Jr., who had been chairman of the CAB a short time before, intervened with an *amicus curiae* brief in the case of Texas Aeronautics Commission, et al, vs. Braniff Airways, Inc., et al.

Mr. Crooker's brief attempted to explain the CAB's failure, which had been cited by an appellate court, to take part in the case by saying: "... If the CAB appears before a state agency and presents its views to the agency, this makes the state agency the judicial tribunal and the CAB a party or a witness or both. The CAB is thus present before the state agency, and the decision of that agency becomes even more difficult to overturn on review, even if a Court would have reached a different conclusion had the matter been considered *de novo*. Staying out of a State proceeding, as was done in this case, has the obvious drawback of leaving the impression with a Court that the CAB is not concerned about the possibility that too much competition may adversely affect the financial viability of a certificated carrier (especially a subsidized one). Such matters, of course, might have some adverse effect on the development of the Nation's air transportation system . . ." I cannot subscribe to this theory.

Furthermore, I doubt that it ever was the intention of Congress to have the CAB be more concerned about the economic health of the airlines than it is about convenience for the passengers. Both factors should be considered, of course, but they should be kept in proper perspective. It is precisely because they have not been kept in perspective, and because the CAB has failed to concern itself sufficiently with the needs of the passengers, that intrastate airlines in Texas and California have been able to take up much of the resultant slack.

In my opinion, dual regulation could work, if it were given a chance. But dual regulation cannot be a one-way street. There must be a reasonable attitude on the part of both state and federal officials. Instead of jealously guarding and trying to expand their own powers, everyone involved should keep constantly in mind the fact that both state and federal agencies exist only to serve the taxpayers who support us.

The thrust of air transportation, historically, has been to cater to the long-haul passengers: planes have been built to suit them, and airports have been built to suit them. But those airports are inconvenient for the short haul passenger and the plane, for the most part, are not economically feasible for short trips.

This gap in the system led to the success of the intrastate airlines in Texas and California. In Texas, people are attracted to the turn-around flights between Dallas and Houston because of the convenience of airports near the

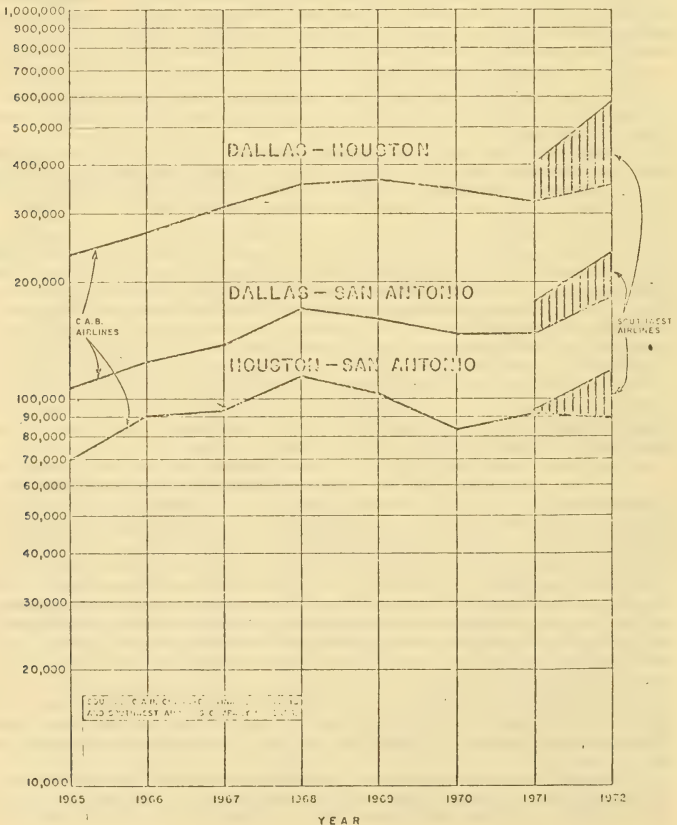
downtown areas, because of the frequency of the flights and because of lower costs.

But the public still is paying a high price for the failure of the states to participate in the development of an adequate air transportation system. It seems to me that the CAB should change its philosophy and encourage the states to operate as full partners. We already have the finest air transportation system of any country in the world, especially when it comes to the long-haul; working together, we could improve that system considerably and take some giant strides forward to benefit short-haul passengers. The states and the federal government have demonstrated the advantages of working together in building our tremendous highway system; I know of no reason they should not work together, in similar fashion, to make our air transportation system all that it should be.

Mr. Chairman, again I want to thank you for this opportunity to appear before your distinguished committee. I will be happy to try to answer any questions.

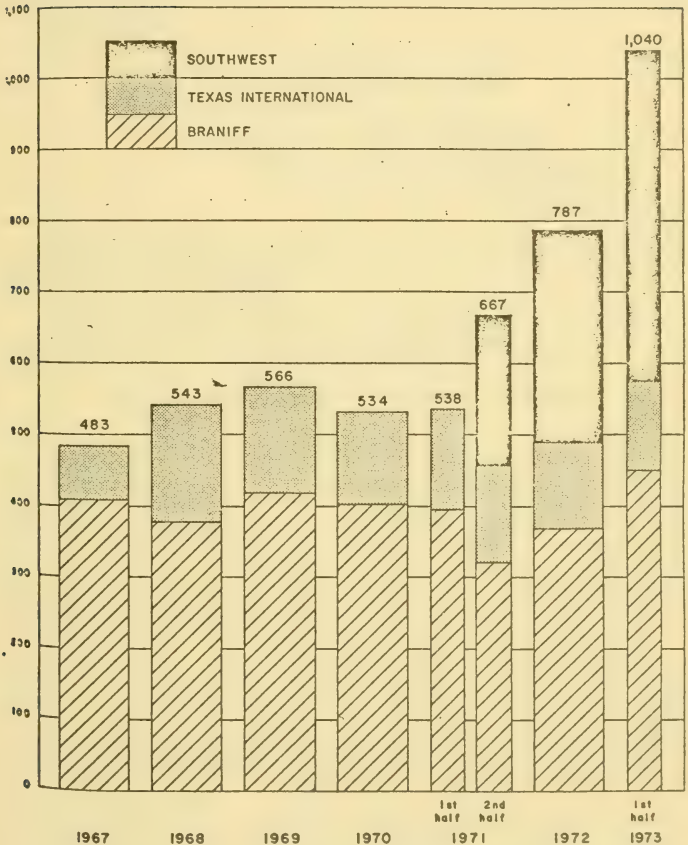
SOUTHWEST AIRLINE SERVICE AWAKENED SLEEPING AIR TRAVEL MARKETS IN TEXAS 1971-1972

O-D PASSENGERS



DALLAS-HOUSTON MARKET

AVERAGE DAILY LOCAL PASSENGERS
CARRIED IN EACH DIRECTION



CAB REGULATION OF ENTRY INTO DOMESTIC AIR ROUTES AND INTO THE DOMESTIC AIR TRANSPORT INDUSTRY

TUESDAY, FEBRUARY 18, 1975

U.S. SENATE,
SUBCOMMITTEE ON ADMINISTRATIVE
PRACTICE AND PROCEDURE OF THE
COMMITTEE ON THE JUDICIARY,
Washington, D.C.

The subcommittee met, pursuant to notice, at 9:45 a.m., in room 2228, Dirken Office Building, Senator Edward M. Kennedy (chairman of the subcommittee) presiding.

Present: Senator Kennedy and Senator Thurmond.

Also present: Stephen Breyer, special counsel; Philip Bakes, assistant counsel; and Thomas M. Susman, chief counsel.

Senator KENNEDY. The subcommittee will come to order.

OPENING STATEMENT OF SENATOR KENNEDY

The focus of today's hearings is on the process by which the Civil Aeronautics Board allocates routes, as the Subcommittee on Administrative Practice and Procedure continues its hearings on Federal regulation of the airlines. Our hearings have so far examined CAB charter policies, general principles of airline regulation, and the differences between regulated and unregulated aviation. At each stage of our inquiry, we are asking whether the procedures used by the CAB are efficient, fair, open, and proper. And at each stage we are likewise asking whether the policies applied are responsive to the legitimate needs of the public, the industry, and our Nation in general.

Searching for a coherent, consistent, public-interest-oriented entry policy at the CAB is difficult. For the past 2 years not one airline was granted new authority to serve one of the 100 heaviest-traveled routes in this country. In the past 10 years, only 142 certificates for these major routes were granted, although airlines filed over 1,800 applications for these certificates. And since 1950, out of 94 applications for trunk authority filed by nontrunk airlines, not a single application was granted by the CAB.

The Board has characterized its current route freeze and refusal to hold hearings on route applications as reflecting a "policy of caution." "Caution" is a strange word to describe a policy that ignores the legislative intent of both the Federal Aviation Act and the Administrative Procedure Act.

The Federal Aviation Act says that route applications shall be set for public hearing and shall be disposed of "as speedily as possible." This echoes the Administrative Procedure Act's prohibition against dilatory handling of petitions: "With due regard for the convenience and necessity of the parties * * * and within a reasonable time, each agency shall proceed to conclude a matter presented to it." Neverthe-

less, the CAB has refused to allow new competitors in airline markets not only by deciding to keep them out, but by refusing even to hear their cases. The CAB staff itself has acknowledged that over the past 5 years cases involving new domestic route authority have generally not been set for hearing, with many of them being dismissed as stale after lingering for years unheard on the CAB's docket.

The procedural effects of this course of action by the Board are clear:

First, it prevents public participation in, comment on, or challenge to CAB entry policies, since there is no articulation of those policies—if indeed there are any such policies—in rulemaking or adjudications.

Second, it prevents effective judicial review of any specific route application because no final, reviewable order is ever entered on that application.

But the most important effect of this overall restrictive entry policy, and in recent years the almost total route freeze, has been to prevent additional competition in existing markets. This may be good for those airlines granted monopoly status or at least insulated from new competition. It allows them to offer gimmicks and frills and frequent, empty flights to attract customers. But it also allows them to keep their fares unreasonably high. And this is not good for the traveling public. Last Friday one witness estimated that CAB regulation costs American consumers about \$3.5 billion each year over what we would pay with a comparable unregulated airline industry. Other witnesses showed us how, in an intrastate market where until recently new competitors could freely fly between cities, the unregulated intrastate rates were consistently and significantly lower than comparable regulated rates. This begins to give us a more realistic picture of one of the prices we are paying for a "policy of caution."

Economists have proposed liberalized entry—freer entry into airline markets—as a necessary step toward lifting the costs and burdens of Government regulation on the traveling public and on those who buy goods which have travelled by air. The administration, at our hearings earlier this month, included a more liberal route-award policy as part of its package of reform proposals directed at aviation regulation. And we will hear from some carriers this morning who believe that the industry, as well as the public, would be better off with more route competition.

The CAB's entry policies and procedures may be outdated. They may be unwise. They may also be illegal. Today we will hear from the Board, as well as some of its critics, who will discuss those policies and procedures. If they cannot be justified as serving the best interests of the American public, then we will continue to chart a course for their change.

[In addition to the hearing record of this day, materials on certification and entry have been collected in the separately bound appendix to these hearings.]

I want to acknowledge that the subcommittee has received a statement from the Maryland Department of Transportation concerning the CAB's entry and report award policy. That statement will be entered into the record. I want to thank them for submitting their statement.

[The prepared statement referred to was submitted by Robert J. Aaronson, State aviation administrator, Maryland Department of Transportation. It is printed at the end of the record of the hearings of this day (February 18, 1975, p. 730, below.)]

Senator KENNEDY. If we could have the representatives of the various airlines testifying today come forward together we can save some time and perhaps get some discussion later. Messrs. Hardenstine, Wexler, Rasenberger, Tipton, Colodny and De Voursney.

Mr. Hardenstine is senior vice president, and a director, of World Airways. He is a former, often-decorated lieutenant commander in the Navy, and he has held various positions in the airline industry. He joined World Airways in 1963.

We have received your statement, Mr. Hardenstine, and the subcommittee appreciates your participation. I would be pleased if you could summarize your statement and tell the subcommittee the experience of World Airways when it applied for transcontinental scheduled authority.

STATEMENTS OF WILLIAM A. HARDENSTINE, SENIOR VICE PRESIDENT—SALES, WORLD AIRWAYS; RAYMOND J. RASENBERGER, COUNSEL, NORTH CENTRAL AIRLINES; HARVEY J. WEXLER, SENIOR VICE PRESIDENT, INTERNATIONAL AND GOVERNMENTAL AFFAIRS, CONTINENTAL AIRLINES; EDWIN I. COLODNY, EXECUTIVE VICE PRESIDENT, MARKETING AND LEGAL AFFAIRS, ALLEGHENY AIRLINES; ANDREW M. DE VOURSNEY, GROUP VICE PRESIDENT, FINANCE AND PLANNING, UNITED AIRLINES; AND STUART G. TIPTON, SENIOR VICE PRESIDENT, FEDERAL AFFAIRS, PAN AMERICAN WORLD AIRWAYS, ACCOMPANIED BY STANLEY GEWIRTZ, SPECIAL ADVISER ON PUBLIC POLICY, PAN AMERICAN WORLD AIRWAYS

WORLD AIRWAYS' 1967 APPLICATION FOR \$75 TRANSCONTINENTAL FARE

Mr. HARDENSTINE. Good morning, Mr. Chairman.

In summarizing the statement that I have submitted to the subcommittee, let me say that in 1967 World Airways submitted to the CAB a proposal that it could operate a transcontinental thrift-class service at approximately 50 percent of the regular coach fare. It was our plan to serve secondary airports to the extent available, which were nonetheless convenient to the major population centers of Oakland, Long Beach, and Ontario on the west coast, for example.

Our idea was that thrift fare should be available to everyone every day. It was our forecast that this plan would stimulate a substantial amount of new traffic, particularly discretionary traffic.

After filing our application 6½ years ago, it was dismissed as stale. No other explanation was given. We still believe it was a good idea. It is still valid today.

But let me add, we were prepared to meet the basic statutory test of proving our plan was required by public convenience and necessity. We were not advocating free entry. All we wanted was a chance to

provide in a regular administrative procedure that our plan met all the conventional standards for certification.

Let me add one other point that may be a bit tangential to your major theme. On page 4 of my written statement, I have summarized fees paid to the CAB by air carriers. Those related to charter matters represented 24 percent of the total paid, even though charter revenues are only 3 percent of industry revenues. This is the clearest possible summary of the overregulation to which we are subjected.

I thank you.

Senator KENNEDY. Could you not have gotten judicial review of the Board's action if you wanted to challenge it?

Mr. HARDENSTINE. I do not know, sir.

Senator KENNEDY. Do you still think you could profitably fly the route cheaper than the prevailing fare?

Mr. HARDENSTINE. I know absolutely.

Senator KENNEDY. You could not tell us now what rate. At that time it was \$75.

Mr. HARDENSTINE. Right, and I think today it would still come into an area of 50 percent.

Senator KENNEDY. You might give us a note if your legal counsel did consider taking some court action. Obviously you should not have to go through that process, but I would be interested to know if that was given thought. You can submit that as an addendum to your statement later on. Do you intend to refile your application?

Mr. HARDENSTINE. At the present time, and I would say under the present climate, I do not think we would.

Senator KENNEDY. Why would you not? What is there about the present climate that would discourage you from refileing?

Mr. HARDENSTINE. No. 1 would be the economic condition of the country at the present time and also the status of the action of the CAB in not granting any of the applications that have been submitted.

Senator KENNEDY. How could the Board dismiss the application without even giving you a hearing?

Mr. HARDENSTINE. Well, as I have stated, the application was in for 6½ years and then it was dismissed as stale, and this is just one case that World had presented and did not—

Senator KENNEDY. What happened when you raised this? Your application had been in for 6½ years. Were you told only that it was dismissed as stale? What kind of response did you get?

Mr. HARDENSTINE. If I recall correctly, Senator, a number of applications were dismissed around the same time as being stale after they had been submitted in the midsixties.

Senator KENNEDY. Did your company try during this period of time to get a hearing, and were you unable to do so?

Mr. HARDENSTINE. That is right, sir. They were submitted and we were, during the period, attempting to get everything set up.

Senator KENNEDY. Do you think it is possible that the Board thought you could not fly at that fare without losing money, and therefore did not feel it was worthwhile to have a hearing given the fares you were talking about?

Mr. HARDENSTINE. No. I would not think so, because in the case that was submitted and in the submission to the Board, it clearly showed it could be operated and operated at a profit.

Senator KENNEDY. How could you fly with a fare so much lower than the other carriers and still make a profit?

Mr. HARDENSTINE. Our feeling was that basically in operating out of secondary airports, first, we could get away from the congested areas—our cost of operation would be less, generally, from the secondary airports.

Second, with the price that we were offering we would be able to have approximately 75- to 80-percent load factor.

Senator KENNEDY. How much of a factor was less congested airports, how much a load factor? What weight would you say you would give to each of those considerations? Could you have flown at 75-percent load factor out of the primary air terminals and still made a profit, or would you have to go at 75 percent out of secondary, and 80 percent out of primary airports? What is the difference?

Mr. HARDENSTINE. The difference in the secondary is, one, you are away completely from the congestion of the airport and generally the fees would be less.

Senator KENNEDY. Landing fees?

Mr. HARDENSTINE. Landing fees, handling fees, space fees.

Senator KENNEDY. Why do not some of the scheduled airlines fly out of secondary airports and reduce fares?

Mr. HARDENSTINE. I think probably the scheduled airlines are serving the secondary airports, but in general, they are serving them with one- or two-stop service. As an example, San Francisco to the east coast, there are a number of nonstop services. If you were looking at Oakland to the east coast, I do not think that Oakland today has any nonstop service.

Senator KENNEDY. Are the primary reasons, then, that you are not resubmitting an application: (1) because of the policy that has been adopted by the CAB, and (2) because of the economic situation? If the economy turns around will you reconsider submitting an application? Do you still think you can fly substantially below scheduled fares? Would you give consideration if the CAB indicated that they would hold hearings—would you give consideration, then, to getting back in the market?

Mr. HARDENSTINE. Absolutely we would, and we still feel that the operation of the type that we did submit is valid.

Senator KENNEDY. Just the assurance, though, that the Board would give you a hearing would not be enough to get you into the business, given the economic problems at the present time, or would it?

Mr. HARDENSTINE. If we knew we would get a hearing and move ahead with the proposal we would go ahead with it at the present time.

Senator KENNEDY. Your application gave a fare of \$75, about one-half what the fare was then?

Mr. HARDENSTINE. Yes, sir.

Senator KENNEDY. And flying at 75 percent of capacity out of secondary airports, you still think that at half the scheduled fare you could make a profit?

Mr. HARDENSTINE. Yes, sir.

Senator KENNEDY. If you operated out of the primary airports what do you think your fare would have to be, can you give us any idea, given 75-percent load factor?

Mr. HARDENSTINE. If we were operating out of the primary areas, here again you would be in the situation of attempting to find space at the primary airport to do a good job for the public and to provide a good passenger service situation. I think that the use of the secondary airports and the use of passengers coming to the secondary airports for a lower fare travel would by all means be the way that any thrift-class service would take place.

Senator KENNEDY. Had you given consideration to other routes, besides the transcontinental flight?

Mr. HARDENSTINE. No, we had not, not at the time.

Senator KENNEDY. OK. Thank you very much. Can you stay with us for just a little while?

[The prepared statement of Mr. Hardenstine is printed at the end of the oral testimony of the airline panel, pp. 365-73, below.]

Senator KENNEDY. Our next witness is Mr. Raymond J. Rasenberger, representing North Central Airlines.

For the past 10 years, Mr. Rasenberger has been a partner in the Washington, D.C., law firm of Zuckert, Scoutt, & Rasenberger.

Mr. Rasenberger has submitted a very illuminating statement to the subcommittee, which describes the legal and practical ramifications of the CAB's route moratorium and points out the problems raised under the Federal Aviation Act and the Administrative Procedure Act. We want to thank you, Mr. Rasenberger, for focusing on the procedural implications of the Board's route freeze. This subcommittee is concerned with administrative procedures, and your statement has aided our work. I would appreciate it if you would briefly summarize your statement for us.

Mr. RASENBERGER. Thank you, Mr. Chairman.

I will summarize my statement.

As you mentioned, we are here at the request of the staff to talk about the CAB so-called route moratorium. We are not here to discuss the merits of any cases pending before the Civil Aeronautics Board—as distinguished from the procedural history of cases we have presented. The merits of cases are things we will deal with before the Board.

CAB'S "ROUTE MORATORIUM," 1969-1974: HISTORICAL PERSPECTIVE

We are also not here to join in any broad attack on either the Federal Aviation Act or the CAB. Of course, we have had many disagreements, and the route moratorium is certainly one of the major ones, but on the whole we have worked under an excellent statute. And we think the CAB, looking at it from a longer and broader view, has done a very credible job in administering that statute.

I hasten to add we are not saying no changes should be made in the act at all. As a matter of fact, we think these hearings are very useful in order to consider the possibility of change.

What we are saying is that we do not think radical changes are warranted, and especially changes involving unregulated entry and exit.

With respect to the route moratorium, as you know, and as I think the CAB staff has acknowledge, the moratorium began in 1970. As I indicated in our written statement, for perspective, however, it is useful to look before 1970. First, of course, at the language of the

statute itself, which calls for public hearings as speedily as possible, and which supports the idea of competition. Second, at the history of aviation before the 1938 Civil Aeronautics Act, which seems to me to underscore the importance of both public hearings and competition.

Then it is useful, I think, to look at CAB history between World War II and 1970. During that long period, the CAB did hear a lot of route applications. It did grant a lot of routes, and it certificated, and many people seem to forget this, a large number of new airlines. In short, it built the system we have today.

North Central is a primary example of what that building process could and did accomplish. When North Central was certificated in 1946 it was operating two five-place Cessnas out of Clintonville, Wis. Last year it carried 4½ million passengers, serving 90 cities, mostly in the upper Midwest but going all the way from New York to Denver. While North Central's primary mission still is today serving these smaller cities, it also serves a number of large routes where it provides strong competition for some of the grandfather carriers, such as United and Northwest and Western.

Now, a great deal of North Central's development as a strong competitive carrier took place by virtue of those route awards particularly in the last half of the sixties. That is why the route moratorium has had a particularly dramatic impact on us. Since 1969, no applications for competitive service by North Central have been set down for hearing by the CAB.

There is one exception to that, an application that was set down in 1970. But that case has never gone forward since that time.

Now, this has not exactly been what you would call a self-imposed moratorium. North Central is a young, very strong, aggressive airline. It wants to compete. It thinks it knows how to run a tight ship. It has been able to make money year after year when many other airlines have not, even with one of the worst route systems. In other words, it thinks it can compete effectively with larger carriers and it wants the opportunity to provide more of that kind of competition.

EXAMPLES OF NORTH CENTRAL ROUTE APPLICATIONS NOT HEARD BY CAB

That is why we have found the route moratorium so frustrating. In my statement I have given three examples how that moratorium has impacted on us.

One was an application filed in 1972 to give nonstop competition between Detroit and Boston. That market is the largest monopoly market in the United States with about 600 origin and destination passengers a day. Today it actually has less service than when we sought a hearing.

We filed that application and a motion for expedited hearing. The principal civic parties supported us at both ends of the route, including civil parties beyond Detroit in Michigan. After 9 months, the CAB denied that motion for hearing. A petition for reconsideration was denied 7 months later.

Another example was our application for Milwaukee-Denver nonstop authority. Milwaukee-Denver is a United Air Lines nonstop monopoly, and has been one since 1946. Since 1969 we filed once for single plane one-stop authority in the market. Later we filed two mo-

tions for expedited hearing for nonstop authority. In these cases we were, of course, supported by the cities such as Milwaukee and Denver. We have had no success in getting that application heard, although I should emphasize there have been dissents among Board members on this question.

The third example is Milwaukee-Philadelphia. That is a market where the CAB found in 1970, at the conclusion of a long case, that competition was needed. It was a United monopoly at that time. The Board, therefore, certificated Northwest to compete. In 1972 United dropped its service in the market. By the start of 1973 Northwest had yet to begin the service it had been authorized to provide. So in 1973 we filed an application, supported by Philadelphia and Milwaukee and ports beyond Milwaukee, to have us certificated to provide that nonstop service. Our motion for a hearing on that application was denied 2 days after Northwest inaugurated a single nonstop flight. That is the service the market is still getting, one flight from Northwest, still none from United.

DIFFERENCE BETWEEN DENIAL OF HEARING AND DISMISSAL

Now, let me emphasize something about each of these three examples. The issue that we presented to the Board was not whether to grant our application, but whether to hold a hearing on it. If a hearing had been scheduled, obviously the applications of other carriers would have been heard. There was a very good chance that some of those applications would have been granted in lieu of our own. There was a very good chance that no one's application would have been granted. But, to us at least, there is a big difference between denying an application after hearing and denying it by refusing to hear it.

A decision that is made after a hearing has to be made on a public record, where the forecasts and all the allegations of all the parties, including the CAB staff, are open to review and cross-examination. And that hearing process imposes on the agency a discipline, the discipline of making a record and of making findings based on that record. Those findings, of course, are reviewable by courts, which is not true in general of decisions not to go forward with hearing applications.

When the Board refuses to hear an application it usually does so on the basis of internal staff memorandums which are generally not subject to challenge by other parties or, as I said, to review by the courts.

SUGGESTIONS FOR REFORM

Now, the question has been raised as to what ought to be done to change all this. We have only a few preliminary thoughts on the matter, Senator, but let me give them to you. First, we think the Board ought to hear every application it can hear as speedily as possible. Now, we recognize that unless the Board gets more staff it can not hear every application that is filed. It is going to have to pick and choose. But we think that picking and choosing ought to be on the basis of public interest standards that are adopted after public proceedings. We think further those standards ought to be simple and ob-

jective standards, and deal with questions like is there competition in the market? How long has it been since we last considered this market? What are the traffic flows in the market?

We are inclined to think the standards should not be based on forecasts. It seems to us that is the very function of a hearing is the probing of forecasts. That is the basic difference we have with the standards suggested recently by the CAB staff in their route study. They would require all carriers to make elaborate forecasts in order to get a hearing set down on an application, those forecasts would be taken up by the Board staff, outside the hearing room, beyond the reach of an administrative law judge, and beyond the opportunity to cross-examine. In effect, what the staff has proposed is standards that might be appropriate for a decision by the Board on the merits that these standards be applied at the threshold of the case on the question of whether to grant the hearing. In other words, the same kind of standards would be used for managing the Board's docket as for deciding a case. We think that kind of confusion can result, and in the past 5 years has resulted, in denying hearings which the statute calls for.

Now, as I pointed out in our statement, the question of what are the proper threshold standards is not a simple question, and our views are at this point only preliminary. We intend to give this more thought and to respond to the Board's invitation to comment on it.

But meanwhile, we do appreciate the fact that your subcommittee considers this problem serious enough to warrant your own thoughtful attention to it. Thank you.

LEGALITY OF "ROUTE MORATORIUM"

Senator KENNEDY. Thank you very much.

I would like to ask you, if I could, why you do not take legal action against the route moratorium. You have outlined in your testimony how the Federal Aviation Act, in section 401(c), states that application shall be set for public hearing, and that the Board shall dispose of applications as speedily as possible. In your opinion as an attorney, do you think the Board's route moratorium violates that provision?

Mr. RASENBERGER. I would say a consistent and unannounced policy of refusing to hold hearings on applications violates the act, yes, sir.

Senator KENNEDY. And then section 6(a) of the Administrative Procedure Act states that, with due regard of the convenience and necessity of the parties or their representatives, and in a reasonable time, each agency shall proceed.

As you point out in your testimony, this was meant to create a legal requirement that no agency fail to conclude a case. Do you think the CAB's refusal to conduct hearings on route applications violates that particular section?

Mr. RASENBERGER. I would say yes, unless it is clear, and CAB would have to answer this, unless it is clear that they did not have the resources to hear any of those applications. Now, if they did not, something happened very suddenly in 1970 to deny them the necessary resources. If an agency has the staff resources it ought to devote them to trying cases, whether it denies all applications or not. I think that is what the act intends.

Senator KENNEDY. Do you know of your own knowledge whether staff shortage has been used as a justification for refusal to hold hearings?

Mr. RASENBERGER. In denying a hearing on our Detroit-Boston application the Board gave a number of reasons, but one of them was that it was busy with rate cases.

Senator KENNEDY. What about the other reasons?

Mr. RASENBERGER. Well, the others had to do with impact on the incumbent carrier, which seemed to be of considerable concern to the Board. It was also said we had not shown that the service was materially deficient, or would involve substantial benefit to the public, or that we could make a profit on it. That pretty well took care of it.

Senator KENNEDY. You thought you could?

Mr. RASENBERGER. Obviously we thought so and we still think so. These questions of what is deficient service and what is of substantial benefit to the public is also questions of judgment. We think that when a large monopoly exists, regardless of load factors, service is materially deficient.

SUSCEPTIBILITY OF ROUTE MORATORIUM TO COURT CHALLENGE

Senator KENNEDY. If the CAB is in fact violating the law, and it seems from your testimony you believe it is, why can you not as an aggrieved party take the matter to the courts and get some relief?

Mr. RASENBERGER. It is very difficult, Senator, because what you would take to court is an order in one case, and what you are dealing with is a policy which is not announced and which is reflected only by the accretion of case-by-case denials. You cannot take a bunch of cases to court. You have got to take one, and in no particular case can you prove on the record of that case, or at least it is very difficult to prove, that the decision was pursuant to a general policy of a route moratorium.

As you perhaps know, the courts are reluctant to interfere, and properly so. I think, in questions that involve the agency managing its own docket and questions of agency discretion generally of that type. That is why, in a way, a moratorium is such an insidious way of dealing with applications, because it is so hard to get judicial review.

Senator KENNEDY. So, in effect, the inaction has the effect of making the Board's policy immune from any kind of judicial review?

Mr. RASENBERGER. Well, it makes it difficult. I do not know, if we went to the court of appeals today, or a lower court and explained this long history of a moratorium, which the CAB staff has now acknowledged existed, whether perhaps we could make a case. But in any case we have not done so and have no plans to do so.

Senator KENNEDY. If they made a ruling in any of these cases obviously you could go to a court and appeal the ruling, but the practical effect of their decision not to hear a case is that it is concluded, without the opportunity of judicial review—with the qualification that you indicated in the last response to my question.

Mr. RASENBERGER. That is right. I do not mean to suggest if they held a hearing and denied all applications it would be that easy to obtain a reversal. The Board could make findings and has done so. In at least one case now being appealed they decided the market did not

require additional service. If those findings could be based on the record and if they were otherwise properly related to the statutory criteria, the Board's decision not to grant a hearing would be upheld, presumably, by the courts. But the point is that requires the kind of discipline and thoughtfulness that is not required by the process of denying a motion for a expedited hearing.

Senator KENNEDY. In any event, it is running quite contrary, certainly to the spirit, and I think in these instances to the letter, of legislation, and obviously no applicant should be required, under any type of governmental process to go through the kind of extraordinary lengths which you have described as being necessary, in order to seek some remedies.

SMALL-TOWN SERVICE (CROSS-SUBSIDY)

Earlier in your testimony you spoke about air service to weak points, connecting stronger points. Are you raising the cross-subsidy issue here, and can you provide us with any examples for the record of cross-subsidy on North Central's routes?

Mr. RASENBERGER. Yes, sir, I am suggesting the system we have today involves a great deal of cross-subsidy. I know there are many who feel that is not the way to go about it. But that is the system we have had. We have built it for 30 years, and North Central is a perfect example of that system at work. We serve many small weak points which we could not afford to serve, even with subsidy, except for the profits thrown off from some of our stronger routes. That is why the Board gave us those stronger routes, and the way we operate involves a sharing of profits from stronger routes as an offset to the subsidy needed on those weaker routes.

In addition to what you would call internal cross-subsidy situations within North Central, I think the whole system, the whole system of intercarrier operations, involves cross subsidy with traffic. In other words, our weak points, and we serve many of them, all funnel into Chicago. We are providing traffic support at Chicago for many larger routes out of Chicago. The existence of those larger routes provides service opportunities at Devil's Lake and other smaller points which need service to Cleveland and other places that they cannot get on one carrier.

Senator KENNEDY. We would be interested in that particular issue. I won't take additional time, but we might inquire further about your airlines, and perhaps about others as well.

Mr. RASENBERGER. We will be happy to cover that, sir.

Senator KENNEDY. Fine.

Thank you very much. I hope you will be able to stay with us in case we have some issues that come up that we might hear responses from.

[The prepared statement of Mr. Rasenberger is printed at the end of the oral testimony of the airline panel, pp. 573-80.]

Senator KENNEDY. We will hear from Mr. Wexler of Continental Airlines, where he is now the senior vice president of international and governmental affairs. Mr. Wexler was a Fulbright scholar at Oxford, holds an M.B.A. from Harvard, and earned the Legion of Merit in the Air Force.

I especially want to thank you, Mr. Wexler, for providing the subcommittee with such a thoughtful and complete statement. The subcommittee's work will be much more fruitful if the airlines themselves think about these issues seriously, and Continental has certainly done that. I would appreciate it if you could briefly summarize the main points of your statement, especially your statement that competition and route awards benefit the public, your views on free entry and how that has worked in California, and the effects of free entry on service to small communities and acquisition of aircraft.

Mr. WEXLER. Mr. Chairman, thank you.

I am accompanied by Mr. Thomas Finney on my right, who is Washington counsel for Continental and a member of our board of directors.

At the outset, Mr. Chairman, let me say that we fully concur with the closing comments of your statement of December 16 on the floor of the Senate where you mentioned the need for revitalization of the Civil Aeronautics Board and the possibility of some legislative changes. As we stated in our letter to you of December 20, we think the act is basically sound, the regulatory framework that the Congress established is perfectly sound, but it may need some modification.

The Board functioned very well for about 13 years, and it developed the world's "finest air transport network." I believe it is the most efficient in the world, certainly the most extensive, and also by any measure the most competitive.

But of recent years, the Board has adopted certain regressive policies that have inhibited the further development of that very system. I shall highlight some of those.

We firmly believe that the regressive policies adopted by the Board must come to an end in the public interest. Specifically we urge the following changes:

CAB'S "ROUTE MORATORIUM" 1969-74

First is the expanding service to the public. The Board has had a freeze on new route awards since 1969. This freeze was never justified and should be brought to an end. The oftheard generalization that the economic problems of air carriers are the result of too much competition in the air transportation system is nonsense. The route awards of the sixties were in now way responsible for the losses carriers sustained during the 1970-71 recession. During that period, the smaller, more efficient carriers pulled through with small profits. It was the big carriers who suffered. They simply couldn't respond to changed economic conditions with sufficient rapidity because of their size. Moreover, the two carriers which suffered the greatest number of new route awards to other carriers in their major markets, namely Delta and United, have remained highly profitable. The reason is that they are well managed and even the substantial new route awards of the late sixties are relatively insignificant in their economic impact on the incumbents or the carriers granted awards.

The prime beneficiary of new route awards is the public. New route awards are essential to assure the continued growth of a network of air transportation to meet the needs of all communities. New route awards also assuer a competitive industry, responsive to the public

needs. Carriers will provide effective service so long as the threat of additional carrier certification hangs over their head. Without that threat, we become lax and seek to extract maximum profits from our routes—often at the public expense. Moreover, new route awards are the proverbial carrot that keeps us pulling our carts.

CAB'S STAFF STUDY, THE DOMESTIC ROUTE SYSTEM (1974)

I might note that the recent study published by the Board's staff purporting to set standards for route awards in the future is no more than an outgrowth of the Board's recent regressive policies. The study proceeds from the wrong policy objective: the protection of carrier profitability. The underlying objective should be to meet the needs of the markets and to properly serve the public. For example, the study urges that competition not be certified unless the incumbent has a 6-percent overall rate of return. That has nothing to do with need of a particular market. The study also urges that competition should only be certificated when the incumbent and the new carrier can each achieve a 12-percent rate of return in the market involved for the first year of competitive operation. This substitutes carrier profits for public service and the benefits of competition. The study also urges achievement of a 55-percent load factor before competition can be certificated. Load factor alone is not the test of whether a market needs or can reasonably support competitive service.

As Congress and the Board have recognized in the past, competition is beneficial in and of itself. In the Board's own words:

Competition invites comparison as to equipment cost, personnel, organization, methods of operation, solicitation and handling of traffic, and the like, all of which tend to insure the development of an air transportation system as contemplated by the Act.

These important benefits of competition seemed to have been overlooked by the Board in the recent past. If I may say, when I use the word, I wish to make the point there has been a healthy disagreement between members of the Board.

OTHER NEEDED CHANGES IN CAB'S POLICIES

Next, the Board should take immediate steps to liberalize carrier operating authority. Every carrier is hampered in its service by outmoded restrictions, imposed years ago. The justifications for many of these restrictions have disappeared.

Third, the Board should stop trying to manage carrier service policies. Its restrictive seating standards controvert the statutory mandate to leave schedules, equipment, accommodations, and facilities to the discretion of carrier management. At the same time, the Board should be encouraged to set standards of efficiency for determining rates. We supported the adoption of such standards and the expansion of the elements of carrier efficiency to be tested. The Board should however, leave actual operating decisions to carrier management.

Fourth, the Board should give the carriers much greater freedom to experiment with promotional fares and to compete with lower fares. The Board's present policies are too restrictive and put a damper on experimentation which benefits the public and benefits the industry.

Fifth, the anticompetitive capacity restraint agreements should be brought to an end. These agreements were approved on an emergency basis due to the failure of the Big Three and Pan Am in 1970 to respond with sufficient rapidity to economic adversity. They have been extended with the rationale of fuel conservation. Today, they have simply no justification.

None of these changes require any legislative action. In fact, all are consistent with the existing statutory requirements, key among which is the competitive mandate of section 102(d). All of these regressive Board policies requiring reversal presently are being tested before the U.S. Court of Appeals for the District of Columbia on the basis that they are contrary to the statute. We have three such actions pending, as I mentioned earlier. The Justice Department is contesting the capacity restraint agreements.

Earlier, the Department of Transportation and the Department of Justice so testified on behalf of that proposal. Thus it is our view that a significant change in direction is needed and can be obtained to a large extent under the present statute. If changes are necessary, they are largely changes to reinforce procompetitive provisions already set forth in the statute.

[These non-entry suggestions by Continental are discussed in more detail in the testimony of Mr. Finney, counsel, Continental Airlines, on February 25, 1975, pp. 1220-42, below.]

CONTINENTAL'S POSITION ON OPEN ENTRY

With regard to the matter of open entry, I have in my written testimony considerable discourse on the California experience. To summarize it, prior to 1965, California had virtually open entry. It did have open entry. At the time there were 16 airlines operating within the State, 14 of which went bankrupt there were two survivors. The State of California in its wisdom adopted an act quite similar to our Federal Aviation Act, and today there is quite vigorous controlled entry in the California intrastate markets. In fact, no intrastate California carriers have point to point competition.

Let me close on a position note. The Civil Aeronautics Board in a 1950 decision stated that:

An objective reading of the Civil Aeronautics Act leaves no doubt that the lawmakers considered competition to be a desirable objective which should be established wherever it is economically feasible and will contribute to the development of a sound national air transportation system.

I hope that this subcommittee and this Congress will bring to bear its energies to this end, but we have a basically sound system and a good statutory framework. Let's try to make it work as Congress intended in 1958 before altering it and destroying our effective network of air transportation.

CAB'S STAFF STUDY, THE DOMESTIC ROUTE SYSTEM (1974)

Senator KENNEDY. Very fine testimony.

As I gather from your testimony, the proposed criteria set by the Board's BOR in their January statements on route making, you feel move us very little down the road toward the benefits of competition, which you stress very extensively in your statement?

Mr. WEXLER. I assume, Mr. Chairman, you are referring to that staff study?

Senator KENNEDY. Yes.

Mr. WEXLER. I think that is simply a perpetuation of the existing route freeze only in a more rigid system. I think as an example, where they put a criteria of 6-percent rate of return on a carrier before it can be subject to competition, a carrier can be terribly inefficient, give very poor service, operate below a 6-percent rate of return and the public would be doomed. It would not have the benefit of competition under that type of criteria.

RESULTS OF OPEN ENTRY

Senator KENNEDY. Have you had a chance to read Professor Jordan's testimony on the California experience?

Mr. WEXLER. No, I haven't.

Senator KENNEDY. I wonder if you would take a look at it and give us your reactions on it, because it goes into a number of areas which you mention in your testimony but which haven't been elaborated on here. I think it would be very useful for us if you would be kind enough to take a look at that.

[The reference is to the testimony of Dr. William A. Jordan before this subcommittee on February 14, 1975, p. 452 ff., above. In response to the chairman's request, James L. Mitchell, vice president of regulatory proceedings, Continental Airlines, submitted comments on Dr. Jordan's testimony. Dr. Jordan then replied, and Continental commented on his reply. These documents are printed after the prepared statement of Harvey Wexler, p. 587 ff., below.]

Mr. WEXLER. I think the point is, Mr. Chairman, California today, unlike pre-1965, does have free regulated entry.

Senator KENNEDY. One of the points Mr. Jordan made was a prediction that free entry would cause a large expansion in the number of airlines. He estimated perhaps many new airlines while others think an open entry policy would lead to only a small number of airlines. I wonder if you might be able to elaborate on your thinking on that issue.

Mr. WEXLER. Well, we believe that under a system, total free entry, that you would end up with a handful, maybe 2 or 3 huge giant carriers, they would end up being high-cost operators. We believe there would be a limited amount of service. We believe that there is quite apt to be predatory practices, and we think it would be in violation of everything that the Congress intended insofar as the U.S. air transportation system.

Senator KENNEDY. What weight do you give to the threat of monopoly prices in a system with open entry? Isn't it possible that other firms would come into the market and charge lower prices?

Mr. WEXLER. Well, sir, I think that today the operation of large jets it requires a great deal of capital and the air transportation system, particularly in the trunkline markets, as a capital intensive industry, and under the classical theory of their high profitability there would be new grants, and that simply hasn't worked. It hasn't worked in other industries. There has been a correlation not only in the United States but abroad that capital intensive industries, over the years

there gets to be a greater and greater degree of concentration, and I see no reason why it wouldn't happen in air transportation.

Senator KENNEDY. There have been some examples of airlines, Southwest in Texas, for example, which started out several years ago without CAB protection, and they were able to get 100-percent financing on their jets, and began to compete with CAB carriers and made good profits. As I understand it, the supplemental carriers, too, have been able to buy big jets with no route security.

I am just wondering, in your own thinking, how you would respond to their presence?

Mr. WEXLER. I think there are two aspects, Mr. Chairman. One is I am not necessarily referring to route security, but certificate security. In the case of Southwest Airlines, like PSA, like California, they do have certificate security.

Senator KENNEDY. Did they when they started? That is the point: isn't it? You said a new airline would have trouble getting capital, but PSA was able to raise capital when it began operations, without a certificate.

Mr. WEXLER. Admittedly at that time the market was not as capital intensive. As I mentioned earlier, in California—

Senator KENNEDY. Let's take the example I have given here. I have just responded to your point that there would only be a small number of airlines because of the capital intensiveness. I gave you the example of an airline that didn't have any secure route structure and was still able to get 100-percent financing. I am wondering whether this is a peculiar set of circumstances or whether it begins to refute your argument.

Mr. WEXLER. I am not intimately familiar, Mr. Chairman with the Texas situation.

Senator KENNEDY. That is fair enough. If you could just take a look though, at the Jordan testimony and give us your reactions, it would be very helpful, because he has obviously given a great deal of thought to this.

Just returning to the CAB staff study on the domestic routes, doesn't it set out criteria specifically directed at preventing new low cost, more efficient competitive service, rather than promoting it?

Mr. WEXLER. That is entirely correct, Mr. Chairman.

Senator KENNEDY. All right. Thank you.

[The prepared statement of Mr. Wexler is printed at the end of the oral testimony of the airline panel, pp. 580-87.]

Senator KENNEDY. Our next witness is Mr. Edwin Colodny of Allegheny Airlines. Mr. Colodny joined Allegheny Airlines in 1957 and is now executive vice president of marketing and legal affairs. Previously, he was a trial attorney for the CAB and the GSA.

We have reviewed your statement, Mr. Colodny, and the full text will be made part of the record. I want to thank you for taking the time to prepare it. I wonder if you could briefly summarize the major points in your prepared statement, including the part dealing with the growth of Allegheny under Federal regulation, the point you make about freedom of entry and exempt commuter carriers, and your recent experience with route applications filed by Allegheny before the CAB.

All of the testimony this morning will be made a part of the record and we want to thank you for preparing it.

Mr. COLODNY. Thank you, Mr. Chairman.

We are pleased to be included in the list of companies invited to participate in these vital hearings concerning the future course of regulation in the U.S. domestic air transport industry.

I will summarize as best I can what I have set forth in the prepared statement, first emphasizing that we support the continuation of the Federal Aviation Act of 1958, which we think by and large has been a success. We think so because of the ability to move by scheduled air carrier on a convenient basis throughout the United States as being the primary objective of the statute.

The safety record of this industry is also remarkable and will undoubtedly continue to improve.

DESCRIPTION OF ALLEGHENY AIRLINES

As for Allegheny itself, our growth has produced a unique airline. Ten years ago we carried 11½ million passengers, and today we are the largest of the regional carriers, serving about 11 million passengers a year. With our tremendous growth in assets during that period, paying no cash dividends except in 2 years, but achieving a milestone in 1974 by receiving no Federal subsidy.

Our record has been due to three primary sections in the statute. First, route grants. Second, mergers with two other carriers, Lake Central and Mohawk. And third, the approval of the Allegheny commuter agreements which the CAB has permitted Allegheny to use to suspend service at loss points in favor of independent commuter operators.

We provide a lot of service from the Mississippi River to the east coast.

Prior to 1965 the CAB had not permitted the local service carriers to serve the short- and medium-haul service markets, but in that year it shifted its policy to permit this. We were a vigorous applicant in several cases.

We have concentrated our jet fleet on one 100 passenger, twin-engine DC-9/30 aircraft in single configurations at coach fare level. We emphasize convenient service with necessary amenities. However, no first-class compartments and no free liquor.

We are a strong competitor against carriers such as United, TWA, American, and Delta, offering a wide range of discount fares.

At the same time we were developing as a major competitor in the short-haul markets, we started the commuter in 1967 in Hagerstown, Md. This was a very successful program which is well known in the aviation community. Twenty-seven cities now receive service from 12 independent air carriers under contract to Allegheny. They generated over a million passengers last year, primarily to and from smaller cities which previously would only generate few passengers with limited frequency and heavy subsidy.

By and large these were the kind of communities receiving limited benefit from a policy of free entry which already exists.

RESULTS OF FREE ENTRY

We appreciate the concern of the subcommittee as well as the concern of some persons both within and outside of the government that

our regulatory schemes by restricting freedom of entry or exit, has led to higher-cost air service than need be paid by the traveling public. In my opinion freedom of entry would do nothing to reduce the price of air travel at the small and intermediate cities in this country. The public interest in the small cities is less likely to be related to the price of air transportation as it is to the availability.

As the Senator and the subcommittee are well aware of the problem in New England, which was recently concluded by the award of a certificate to Air New England where they were not trying to get cheaper but adequate air travel. Had freedom of entry been a success in northern New England, it would not have been necessary for CAB to certificate Air New England.

I have speculated as to what might have been Allegheny's policy toward small loss points had we had freedom to exist without CAB's approval.

It is questionable whether the Allegheny commuter concept would have been created and most of these 27 points would have simply disappeared from the scheduled airline map.

What about larger communities and city-pairs generating large traffic pools. The CAB study which was recently released has a good deal of important information in it. Allegheny's system is as shown in exhibit 1. Fifty percent of our total passengers enplane and deplane on just 39 pairs of points, that is 11 percent of the total of 369 pairs of points which we serve on a single plane basis.

Now, a lot of these larger markets that we serve act as a conduit for service between many pairs of points. For example, our Chicago-Pittsburgh services also serve Chicago to points such as Wilkes-Barre, Scranton, and Allentown, Pa., and our flights over the Philadelphia-Pittsburgh segment also serve cities such as Albany, Hartford, Providence to the east and Erie, Columbus, Dayton, Louisville, and Indianapolis to the west.

In scheduling our system we evaluate the flight as a whole for profitability, since the traffic flows are made up of a series of individual markets and we have set forth in our statement how that is broken down.

An example of the Philadelphia-Pittsburgh segment would show, if restrictions were eliminated on entry, this segment could be attractive to a person investing in a small fleet of jet aircraft, perhaps two or three units to get into business, slash the price and attempt to drive Allegheny and TWA out. We would have to have to choose between meeting the competition by a combination of price or service adjustments.

We think that anything that destroys the system that we have in order to benefit a few markets should be very, very cautiously approached.

It is conceivable that a few large concentrations of traffic would benefit by freedom of entry. I have no doubt that Los Angeles and San Francisco to New York or some of the Chicago markets might benefit. But before you consider going this route I would suggest very strongly that you would have to consider as concomitant a breakup of large carriers such as United, TWA, and American before you could ever logically proceed to freedom of entry. The predatory nature of

our industry is such that we will eat our young, we will go after other carriers' markets, if given a chance.

We should ask ourselves what the domino effect would be. Carriers forced to withdraw from their markets would look for other places to fly the aircraft in which we have invested. There is no easy answer to this Pandora's box. We also urge that you take a good look at a major reason for the increased demand for low-cost air service, the loss of youth and family plan fares. I think if this is approached by reinstituting these two fare programs we will go a long way toward meeting the public need for low-cost service.

A major burden is also being imposed by the cost of fuel, which in Allegheny's case is 110 percent higher in 1975 than in 1973. We also urge that you look at the cost of operating the ground portion of the air transport system, noise and environmental costs, which are all passed on to the user.

But so much for those things which you should look at. Obviously there are things which we as airlines must do to control the cost of our business. We must reexamine the technological side of our business to avoid premature obsolescence. While unit cost improvement which came about through jet development, and which obviously has been a tremendous boon to the country, future development must proceed on the theory of improving the productivity of the aircraft in that necessarily increasing the size of the machine. If the Congress adopts a program which permits freedom of entry, the airlines would be faced with the impairment of the stability of their investment capital and the ability to raise long-term funds.

In the case of Allegheny, our interest expense last year was \$12 million on our funded debt.

In summary, we do not believe freedom of entry is really the issue. There are numerous certificated airlines available to do the job, particularly the local service airlines and smaller trunks. We are willing to invest money and expand service at reasonable prices. Since the late sixties the CAB has in effect created eight regional trunklines who effectively compete in many markets with the larger carrier. While we urge the Congress not to disturb the sections of the act dealing with route entry and exit, there are some things which do need attention and in which congressional interest can be beneficial. One is the vexing problem of route moratorium which the CAB imposed by indirection in 1970 and 1971. The downturn in the economy which occurred at that time was properly recognized by the CAB as requiring a slowdown in the new route authority.

Senator KENNEDY. Could you summarize these last witnesses' points?

Mr. COLODNY. In the case of the comments made by Mr. Rasenberger and Mr. Wexler, we generally think that the Board can correct the situation without a change in statute simply by moving forward with setting cases for hearing, and particularly cases involving monopoly markets where trunklines sit on dormant grandfather rights and do not provide scheduled service.

Thank you very much, Mr. Chairman.

Senator KENNEDY. Is not really the thrust of your testimony that you have some real concerns about additional competition coming into local service carriers' markets under an open entry policy, because of a

threat of predatory practices, and the other reasons you mention? It seems your profits having gone up pretty well, rising from \$26 million to \$366 million.

Mr. COLODNY. Obviously, Senator, we are concerned about our company on a self-interest basis first. As I point out, the domino effect of creating open entry, taking for example United Air Lines with a very large fleet of two and three engine aircraft which are quite suitable for serving many of the Allegheny markets, there is no way of predicting what would happen under a free entry system such as Professor Jordan suggests with 100 or 200 airlines each serving a small segment of the industry's requirements. We do not know what the impact would be, but it is true, we are concerned with our own system, and we do not see open entry as giving us an opportunity to make it up by operating profitably in somebody else's markets.

Senator KENNEDY. Of course entry may be a threat to the profits of your airline. The question is, What does free entry mean to the public as well, in terms of accessibility to air travel and cost?

Quite frankly, I am troubled by some of the words that we hear during the course of these hearings. On the one hand, people in the industry—and I am not directing this comment specifically at your testimony, but just as an observation generally, having listened to the testimony for a few days—speak of the problems with a policy of open entry and freer competition, the dangers of predatory price competition and chiseling. On the other hand we hear the same policies described as encouraging healthy price competition. It almost seems as if it were a question of whose ox is getting gored. On one hand free entry is portrayed as the free enterprise system, and on the other hand it is a scurrilous group of fly-by-night operators and chiselers getting into the market.

Mr. COLODNY. It does sound as if we talk out of both sides of our mouth, and sometimes we do.

Senator KENNEDY. Perhaps that is true on this side of the table as well.

Mr. COLODNY. The fact of the matter is that the philosophy as we see it has been one of building a system, not a series of individual fiefdoms, but a system of domestic air travel. It is the same way—we built a system in other fields in this country through our taxation, social security taxes and what not. Of certain people paying for benefits of other people. It is no different in air travel. There is a public interest in having this system.

Now, there has been open entry in the automotive manufacturing business for a good number of years, and yet there are only three large companies dominating that whole deal.

Senator KENNEDY. You do not think General Motors sets the price for all the others?

Mr. COLODNY. I probably over stated it, it may be only one manufacturer dominating the scene, but I am frankly not close enough to know. But we do have a public interest in having demographic distribution of our population. We do have a public interest in seeing that smaller cities can survive. We do have an interest in seeing some decentralization from our larger urban centers, and all of these things are part of what is involved in maintaining this system of air transport. Admittedly, it may not be the cheapest, but in terms of value I think we deliver a very fine product.

CROSS SUBSIDY (SMALL-TOWN SERVICE)

Senator KENNEDY. If cross-subsidy does occur, I think the public is entitled to know, in terms of this cross-subsidization, what they are paying for. We have been flying back and forth, up to Boston and on other routes, and now we find out we may have been paying extra high prices in order to subsidize Peoria, and yet we cannot find out for certain. We ask the airlines and they respond that it is too complex, they cannot provide specific examples. I do not understand why the airlines cannot tell me exactly what we are paying for, what we are subsidizing on particular routes. Why should not that be right out in the open rather than hidden away in the fare structure? And if it can't be identified, then perhaps there is no cross-subsidy.

Mr. COLODNY. I think it is out in the open first in two respects. First, the two phase 9 fare structure decision of the Civil Aeronautics Board lays it out very clearly that the fares will be based on cost and not on any other factor.

Senator KENNEDY. If fares are cost-based, there is no cross-subsidy. Is there cross-subsidization?

Mr. COLODNY. Absolutely.

Senator KENNEDY. Phase 9 is against that. Is that correct?

Mr. COLODNY. No, I think the cross subsidization occurs not in terms of yield per mile but in terms of traffic density.

In the case of Allegheny, we provide services both to the cities which are classified as subsidy eligible and cities which are subsidy ineligible, market pairs, such as Chicago-Pittsburgh have no subsidy, Binghamton to Boston is. We can provide, and all the local carriers do provide a breakout of the cost of their subsidy eligible services to the CAB every 6 months, and that breakout shows the deficit at the operating level or at the net level of operating all these loss operations.

The other side of the equation is a compilation of the profits, if any, of the subsidy ineligible services, and those profits are being used by the CAB to directly reduce subsidy. They are not being used however, to reduce the cost of air travel. In the case of local airlines, it is the Federal Government who takes the cream off the top, so to speak, not the public.

Now, in the case of the larger trunklines, I would rather let United speak for itself, but I am absolutely sure they have the same process going on in their system, and our cost allocation methodology in the industry is not entirely perfect, but we do have a pretty good idea of the level of profitability of a given market, and that can be provided to the subcommittee.

Senator KENNEDY. We have heard that the California airlines serve smaller communities at low fares without subsidy. We have had testimony to that effect.

Mr. COLODNY. I frankly am not familiar with the California situation. Senator, I skimmed Professor Jordan's comments over the weekend, and frankly I was unable to tell whether that situation was really comparable to that situation that we know.

We have some unique problems—

Senator KENNEDY. We are troubled because the DOT and the Council of Economic Advisers indicate to us that there is very little cross-

subsidy. That is what they tell us, and then we hear from the airlines that there is cross-subsidy, and that is why we bring these kind of questions up.

I would be interested if any of the others want to make a comment. It seems the public has frequent service with the existing network of interrelated airline services. We get a high, perhaps excessive, frequency of flights and a lot of service on those flights, but the public has no alternative of less frequent flights and less service on the flights, at lower fares. That alternative is not available to the American public. That is an observation I have made from the hearing both this morning and the other day.

Let me ask you if you believe consumers should have that alternative available to them?

Mr. COLODNY. May I just make one comment, Senator. The problem most markets have is a lack of traffic density to warrant cutrate prices, because even if you cut the prices low enough there are not enough people interested in flying at any price between some markets in this country.

Now, between Boston and Washington, Allegheny entered that market—we hold a certificate for nonstop—we entered that market a year and a half ago and thought we would take a whack at Eastern, Delta and American. We put in 5 round trips a day and we lost a good deal of money. Unfortunately the one thing we did not compete with was price. I have no doubt we could have competed with price and had a temporary advantage, but as has been pointed out, our fares would have been matched and ultimately we would have had a problem staying in the market, though I have a feeling that we will be back in there some day soon, and perhaps with some new experimentation that the subcommittee will be interested in.

[The prepared statement of Mr. Colodny is printed at the end of the oral testimony of the airplane panel, pp. 620-29.]

Senator KENNEDY. We will, and the public might have had cheaper transportation as a result if you had gone in there, at a lower price.

Mr. DE VOURSNEY. I have some data on cross-subsidy. United Air Lines in 1974 operated at 698 one-way city-pair segments, with one or more schedules, generally more. In 1974, which was a year of resumed profitability for us, we had 21 percent of those segments or 145 with revenues below variable cost. In other words, we were not recovering our direct labor, landing fees, fuel, and oil. Fifty-five percent of those segments, or 385 out of the 698 did not produce a profit before Federal income tax.

[These figures were later revised by United Air Lines in letters to the subcommittee dated February 28, 1975 and April 29, 1975. These letters are printed following Mr. de Voursney's prepared statement, pp. 635-37, below.]

Now, there is the best measure I can give you of the extent of cross-subsidization. These segments include—I have numerous examples.

Senator KENNEDY. Is this typical of recent years?

Mr. DE VOURSNEY. I think if you go back into 1970, obviously the percentage will be even greater, but 1974 probably is a very good year for this purpose. On a single month basis this varies, but this is for the year as a whole. I have numerous examples.

Senator KENNEDY. I do not want to take the time now, but if you could provide these figures we would take a look at it. It would be very helpful. Mr. de Voursney, I know you are interested in dangers to the airline industry, and I want to thank you for your statement and your views on how that would effect small communities, and your views on the route freeze and how the CAB policy serves the public interest.

Mr. DE VOURSNEY. In a year such as 1974, with 55 percent of those route segments not earning a pretax profit, you can easily see that if our total profitability is impaired as a result of free entry we will have to look long and hard as to whether we can continue these services, whether they be the 21-percent which does not meet variable cost or the 55 percent which does not earn a pretax profit. I think there is a real danger that in a situation of adversity, which I believe free entry would bring on that the odds are that these services would be substantially curtailed.

Senator KENNEDY. Are those 21 percent of communities or——

Mr. DE VOURSNEY. Twenty-one percent of the segments over which we fly, a segment being defined as Flint, Michigan to Chicago.

Senator KENNEDY. What percent of those——

Mr. DE VOURSNEY. Can I amplify my comment?

Senator KENNEDY. Sure.

Mr. DE VOURSNEY. I think it is wrong to talk in terms of loss cities. We do not lose money on the city. We lose money flying in-route service between cities. You can lose money flying between New York and Boston, and those, of course, are two very large traffic generating points.

Senator KENNEDY. Well, that brings me closer to my point. Of those communities, what percent of them have any other air service?

Mr. DE VOURSNEY. When you get down to these marginal segments, the alternative services are generally a good deal less and in some cases nonexistent. Some of these are monopoly points. Very few are served by more than two carriers. Here are some examples: Denver-Grand Junction, Detroit-Baltimore, Fort Wayne-New York, Omaha-Des Moines, Baltimore-Buffalo, Jacksonville-Atlanta, Memphis-Charlotte, and so on. There is a long list.

Senator KENNEDY. Would you abandon those if you could?

Mr. DE VOURSNEY. No, we have made no effort nor do we plan to abandon those. I think, however, we might be forced out in a situation where our profits on other routes were insufficient to pay the deficit of servicing these segments.

Senator KENNEDY. Can you give us an idea of what additional costs consumers are paying in order to keep these smaller segments? Every time I fly, then, from Boston to Washington am I paying for somebody to go from Jacksonville to Atlanta?

Mr. DE VOURSNEY. I think our accounting system would permit us to make that calculation, yes. Well, obviously we can take the amount which these cities are below a pretax profit and spread that over the rest of the system. That might give an approximate number which would give you what you want.

One thing I would like to add on this question of cross-subsidy, you know, airline passengers move around the country rather generally and a man who is subsidized on one segment may well be helping pay

for his own subsidy. We are customers of a system, not tied to a single route, either cross-subsidized or not.

Senator KENNEDY. I may fly from Boston to Washington 20 or 30 times a year, but then when I fly from Boston to Binghamton I will get a little back?

Mr. DE VOURSNEY. Yes, sir.

Senator KENNEDY. Why do you not go ahead with your testimony.

Mr. DE VOURSNEY. Yes, sir. For almost 50 years my company has grown in partnership with Government, and for about 40 years of that time under regulation of the CAB. The U.S. airline industry has become an acknowledged world leader in safety, in service, in technology, and in efficiency, and I might say in fares below those charged in other parts of the world.

We have improvements that can and should be made. In reviewing the testimony in this proceeding and in earlier writings the critics of our regulatory system generally do not allege that economic regulation of the airlines has produced inadequate or inefficient air transportation; rather, they claim it would be even better were their various proposals adopted.

I believe that the task of evaluating how much better relief we could have under deregulation is a formidable one. There are many uncertainties. There is a reasonable case that hasty judgments or actions to discard what we know have collated to deterioration rather than improvement and the impact of that deterioration, both on those whose livelihood depends on the health of the system and upon the Nation's economy could be very great. That is why we welcome a thorough examination of these issues to carefully weigh the issues to carefully weigh the values of what we now have against the benefits of indicated change.

The opponents of regulation have testified before you. Virtually all have called for higher industry load factors. They decry scheduling as an uneconomic form of nonprice competition. Some assert that the CAB's 55-percent load factor standard is too low and that low-load factors promulgate fares which are excessive. Mr. Peck made the assertion that flying planes half-empty is not good economics, and I could not agree more, particularly since it produces disaster at the bottom line.

RESULTS OF FREE ENTRY

What does concern me, though, is that in their next breath most of these gentlemen urge greater freedom of entry, a step by which load factors somehow would be forced upwards as new carriers enter the business with more planes and more schedules or as existing carriers move into markets previously closed to them. This logic completely escapes me. If any development is guaranteed to drive down load factors and drive up related costs it is the invasion of the market by a group of new entrants using both price and prime time service frequency as competitive weapons in a fight for market share.

PROFITS AND LOSSES OF BIG FOUR AIRLINES—AIRLINE ECONOMICS

I would like to introduce into the record a few numbers. Recently I compiled the four largest carrier's profits for the last 10 years. I found some interesting things. These are based on the reported results.

In the aggregate, over the years for the last 10 years, lumped together, TWA's domestic system has lost money, a pretax loss. In the last 8 years, as an aggregate, Eastern Airlines has lost money, a pretax loss. In the last 6 years, American Airlines has suffered a pretax loss. Fortunately, we—United—have lost money in only one. I think the pretax margins are interesting. TWA's domestic system is six-tenths of a cent deficit. Eastern, a profit on the plus side in the 10-year history, amounted to a profit of four-tenths of 1 cent out of every dollar; American, 2.2 cents in 10 years; and we have had a somewhat better margin, 4.8 cents.

To paraphrase a speech Charles Baker made on ICC, if the regulatory agencies are protective of those they are designed to regulate, I would hate to see the plight of the regulated if the agencies ever become hostile.

An airline has three primary ways to reduce costs. The first is higher load factors, the second is more seats per airplane, and the third more hours per plane per day. These factors have considerable leverage, but the cost benefits of each would be much harder to obtain, in my judgment, under a condition of deregulation.

In looking at service competition we should remember the highly incremental nature of airline costs. About 90 percent of the fare from each passenger above the break-even level goes directly to pretax profit. This helps explain the service competition which it promotes and the tactics of airline marketers. It still will exist no matter if deregulation will push fares down, the attraction of getting that marginal passenger will continue.

Mr. Wexler said something about the industry being capital intensive, and I am a good friend of his, and I respect his knowledge of the industry. This industry is not capital intensive, it is labor intensive. About 44 percent of our expense dollar goes for wages and benefits. You can get into this business with a little side money and some leasing, and people have done it that way.

Senator KENNEDY. How does it compare, for my information, to say other industries: for example, automotive, steel?

Mr. DE VOURSNEY. There I think you do have a capital problem.

Senator KENNEDY. What is the labor cost, as a percent of cost of production.

Mr. DE VOURSNEY. In those industries?

Senator KENNEDY. I can find out, but——

Mr. DE VOURSNEY. I do not have the numbers. I will be happy to submit them.

Senator KENNEDY. I was just wondering how the airlines compared to other industries.

Mr. DE VOURSNEY. Freedom of entry is possible with steel and railroads, but I have not seen anybody starting up new steel companies or railroads. One other point, Mr. Colodny talked about breaking up United and TWA, et cetera. It is quite a relief from being accused of being inflexible, unmanageable and inefficient. Thank you.

Senator KENNEDY. Of the communities that you serve now, if there were freer entry into the market do you think those communities would be denied any air transportation?

Mr. DE VOURSNEY. I would suspect that would depend on if others feel they could provide service with a profit. We have about 10 cities

which we have made applications to delete at one time or another. I would suspect we would go back and look at them and possibly take action on our own.

Senator KENNEDY. Does this include the 145 communities that you mentioned?

Mr. DE VOIRSNEY. I beg your pardon.

Senator KENNEDY. I think you mentioned in the earlier part of your testimony—

Mr. DE VOIRSNEY. Those were segments, some of which might have served the cities in question. These were 10 cities per se.

Senator KENNEDY. Would those segments be served, do you think, with open competition, or would they not be served? What is your judgment? You have given a lot of thought to this whole problem.

Mr. DE VOIRSNEY. Some would be and others might not be. We have some classics which I doubt would be attractive to any one, in fact, even at very high prices.

Senator KENNEDY. What is your reaction to the fact that the CAB has not had hearings on various routes? Do you have any kind of a response to points that have been made, that this is violating at least the spirit of the Aviation Act or the Administrative Procedure Act?

Mr. DE VOIRSNEY. I think preferably that when policy matters of that kind are established, just as for the new route study proposals, that there be public hearings, on the public interest in imposing moratoriums, imposing new rules such as are imposed in that study, I think there should be a broad public inquiry and in a public forum.

Senator KENNEDY. So they should have an opportunity for a hearing?

Mr. DE VOIRSNEY. That is right.

Senator KENNEDY. You do not believe that if the Board had a more open-route entry policy that the antitrust laws would be sufficient in terms of predatory price competition to maintain some stability in the market?

Mr. DE VOIRSNEY. Senator, I believe we would be substituting a system by litigation. When I think of the restraints that would impose. I do not see how you can run an airline system in this country and run it effectively.

Senator KENNEDY. Thank you very much.

[The prepared statement of Andrew de Voursney is printed at the end of the oral testimony of the airline panel, pp. 629-35.]

Senator KENNEDY. We will hear from Mr. Stuart G. Tipton, senior vice president of Pan American Airways, and Mr. Stanley Gewirtz, Pan Am's special adviser for public policy.

Mr. Tipton has worked for the CAB. He has been general counsel, president, and chairman of the board of the Air Transport Association.

Mr. Gewirtz is a lawyer who for the past 30 years has served with many governmental agencies including the CAB, the Senate Armed Services Committee, the National Aeronautics and Space Administration, and the Department of Transportation.

Mr. Tipton and Mr. Gewirtz have supplied a very detailed statement that points out the differences between domestic regulation and regulation of international carriers like Pan Am. The statement argues

that regulation of entry and routes in the international field is radically different than in the domestic field, and that free and liberalized entry cannot be applied as easily in the international area. I think your points are good ones. Could we go right to questions, or are there several points in your statement you wish to emphasize first?

Mr. TIPTON. I will proceed briefly, Mr. Chairman, and cover a number of points, and then, of course, be available for any questions.

First, let me be sure that our statement is in the record. I do not know whether it is or not.

Senator KENNEDY. Yes; it is. They will all be printed in the record, and any supplemental information that we want to provide as a result of these questions will be made a part of the record, too.

DIFFERENCES BETWEEN DOMESTIC AND INTERNATIONAL AIRLINE INDUSTRIES

Mr. TIPTON. Most of our discussion up to this point has been related to purely domestic problems that have bearing upon the creation and operation of our domestic system. We will discuss the problem in the international field as it differs from the domestic. As such, it has bearing not only on the certification process of the Civil Aeronautics Board, but also on the issues that have been presented to the subcommittee concerning freedom of entry and exit, and the alterations in the regulations of rates.

Looking at the international field, it seems quite clear that it presents a wholly different set of problems as it relates to the determination of policy between free entry and regulated competition as we have it now. I would say flatly that we really cannot have freedom of entry in the international field, and we really cannot have an elimination of rate regulation in the international field. The United States and its carriers must deal not only with a single entity, but with every foreign government into which the United States has a carrier operating. These differences are marked and fundamental. Let me run through them rather quickly.

First, as to entry in the international field, the entry is really largely controlled by foreign governments, not by the U.S. Government. The United States can determine it would like to have a carrier go some place and serve a particular market, but in order to have that actually take place, the United States has to get the consent of the foreign government and get it through bilateral negotiations. So whatever might be said as to freedom here, there really is not that freedom.

As to rates, virtually the same thing can be said. A carrier cannot charge any rate to which a destination country objects. That creates a problem on a multilateral basis. The IATA conferences of carriers has been utilized for that purpose. As to capacity, the main area in our domestic air transport system where you do have a large measure of freedom; in the international field, you have very little freedom. It is regulated by international agreements.

The various governments carry those capacity agreements into effect, and thus a carrier in that field certainly does not have complete control over the capacity he operates on his routes.

Market environment is wholly different. In the domestic system, carriers are unsubsidized for the most part. In the international field,

competition is seriously distorted by the application of governmental policies to the operation of subsidized foreign-flag carriers, and the application of their policies with respect to balance of payments and tourism and the like.

As to the degree of competition that has to be operated over a particular route or within a particular area, there the system is wholly different than the one we have in the domestic field. The level of competition relates largely to the workings of bilateral agreements and international negotiations, rather than on a determination of the economics of competition, or no competition.

A quick example. We have three domestic carriers operating between New York and Miami, and 3 million passengers move over there. There are 10 carriers from New York to London and it is a million-passenger market. So that it reflects no determination on an economic basis as to the amount of competition you should have.

The level of competitive opportunity is an important distinction as well. All carriers in the United States operate with an equal level of competitive opportunity. In the international field any carrier is subject to the determinations of a foreign government, which may well produce discriminations about which the Congress, this last session legislated, the level of user charges. In this country we have levels in airports and airways that are fixed first by Congress in the case of airports by negotiation—arm's length negotiations between the carriers and the airports. In the international field the carriers are at the mercy of whatever the Government may choose to charge them for the use of airports and airways. That, also, our Congress dealt with in the last session. Cost of capital is a major difference. Many foreign flag carriers are financed by their own governments.

The political and economic environment in which we operate is wholly different. Here sometimes we think the United States is a little unstable, but we have to agree that it is a stable environment in which to operate. Operating in foreign governments, anything is likely to happen, and many times does.

So I want to emphasize here these distinctions as they relate to the certification process the Board has carried out. I have had the feeling for a long time that the Board has not given enough weight to these facts, to these differences and the environment that an international carrier meets as contrasted with a domestic one. As far as the application of the theories of the free market, I do think we have to recognize in the international field you just cannot have it.

WHY PAN AM DOES NOT HAVE DOMESTIC AUTHORITY

Senator KENNEDY. I think that is a valid point and one which is made very strenuously in your statement, with a great deal of validity.

I have just a couple of areas that I would like to talk with you about, and also Mr. Gewirtz, and that is why you have not applied for more domestic routes.

Mr. TIPTON. I would be glad to have Stan answer that question.

Mr. GEWIRTZ. Thank you.

We have in the past applied for domestic routes. In fact, we have had an application pending now for some years in which we have had an affirmative recommendation from the administrative law judge.

It involves the certification of Pan Am between Miami and Los Angeles. That administrative law judge's decision was handed down in the summer of 1973, and further action deferred, pending a request by the Board for an environmental protection study to be submitted to the Board. But oral argument has not yet been scheduled even though the environmental study has been completed.

In terms of other domestic routes, over the years, Pan Am has applied for them. I guess about 25 years ago, at the time of the domestic route case, it was decided there would be no mix as between the international operations of a carrier and its domestic. You know that this has been honored in the breach to the great fiscal instability of Pan American.

Senator KENNEDY. You mean you had that affirmative decision 2 years ago?

Mr. GEWIRTZ. The administrative law judge decided the case favorably as to Pan American.

Senator KENNEDY. I see. You still do not have a hearing date?

Mr. GEWIRTZ. Still do not have an oral argument date set, no, sir.

Senator KENNEDY. Do you think if you had been able to get that route and perhaps some others, that your financial plight would have been somewhat relieved?

Mr. GEWIRTZ. It would certainly have been helped. The administrative law judge's recommendation supported our contention that we would enjoy about a \$15 million annual profit on that route.

Senator KENNEDY. Did you apply for any other routes, or just that one?

Mr. GEWIRTZ. We have applied for other routes in connection with our international operations. We have asked for fill-up rights. We operate between many United States points, but most of those have long-haul restrictions—for instance, we can go from New York to San Francisco, and we intend in fact to put that service back on again, but in order to fly between New York and San Francisco, you have to be destined for a point west of Honolulu. A San Francisco passenger can be flown to New York, and stopover, but he can only be carried if he is destined for a point east of New York, and that is London.

Senator KENNEDY. You mean the planes fly out there in any event, but you can only fill it if people are going west of Honolulu?

Mr. GEWIRTZ. Yes; west of Honolulu. We have quite a number of routes where we have asked for fill-up rights which would help tremendously. There are occasions on which even the capacity of domestic carriers on some of these routes is taxed and where we would enjoy considerable help were we to get fill-up rights.

Senator KENNEDY. The plane is on its way out there anyway.

Mr. GEWIRTZ. We burn fuel and pay at least 13 cents more a gallon, on a system basis, than what is paid by the domestic lines. If we had enjoyed the domestic airline fuel price this past year, I think we would have broken even rather than lost about \$80 million.

Senator KENNEDY. Would you apply for other domestic routes if you could get a hearing?

Mr. GEWIRTZ. At this point, I doubt it. With Miami-Los Angeles fill-up rights, and some additional U.S. gateways indigenous to our operation, we would be well on our way to viability with some of the cost controls we have developed.

IRANIAN LOAN TO PAN AM

Senator KENNEDY. There is another area which there is public interest in, and that is the loan that is being arranged with the Iranian Government. Will this give the Iranian Government control, or, some say in Pan American's management?

Mr. TIPTON. No; it will not give the Iranians control.

Senator KENNEDY. Will it give them a voice in the management?

Mr. TIPTON. They will have, when this stock is issued, 13-percent of the common stock of Pan American. They will have one member on a 17-member board of directors. Now, there is a very large amount of stock outstanding other than theirs and 16 other directors.

Senator KENNEDY. What does the Board consider to be presumptive of control, 10 percent?

Mr. TIPTON. Yes, 10 percent.

Senator KENNEDY. They will get 13 percent?

Mr. TIPTON. Yes. The statute provides that for the purpose of applying to the Board for approval of an acquisition of control that it is presumed that 10 percent equity ownership constitutes control. That, of course, is rebuttable. We have proposed to submit the agreement when and if it is negotiated to the Civil Aeronautics Board for approval, and we expect to convince them that in this instance that amount of stock does not constitute control.

Senator KENNEDY. Will that agreement be made public?

Mr. TIPTON. Oh, yes, it will be made public.

Senator KENNEDY. In its entirety?

Mr. TIPTON. Yes, it will be made public in its entirety.

Senator KENNEDY. I read over the weekend that the administration has approved it in principle. Is that correct?

Mr. TIPTON. That is correct. The administration approved the agreement in principle, and thus freed us to continue our negotiations with the Government of Iran.

Senator KENNEDY. Let me ask you, does it raise any questions in your mind when a major oil producing country invests substantially in an airline that may be competition with other airlines? Does this raise any problems in terms of any of your competitors?

Mr. TIPTON. It does not, and the reason it does not is because not only our competitors but ourselves are so closely supervised by the Government, almost everything we do must have Government approval of some sort, public approval, that it would be very difficult to see how damage could be done to our competitors as a result of this Iranian loan.

Senator KENNEDY. OK. Thank you very much. I think that is fine, very helpful. There are probably other additional questions which I would like to get your reaction and response to that came up during the course of the morning, so we would like to get back to you. I would like to thank you for all the testimony. It was very, very helpful and very responsive to our areas of interest, and very complete. Your responses have been, I think, very informative in making the record. I want to thank you very much.

[The prepared statement of Mr. Tipton follows, pp. 637-46, below.]

PREPARED STATEMENT OF WILLIAM A. HARDENSTINE

Mr. Chairman, I greatly appreciate the opportunity to present to you the views of World Airways concerning your inquiry into CAB practices and procedures. On December 20, 1974, Mr. Edward J. Daly, president and chairman of the board of World Airways, submitted written comments to specific questions which had previously been presented to us. Mr. Daly regrets at being unable to be present today but has asked me to supplement those views with specific comments concerning our experience with respect to two other aspects of CAB regulation: First is the handling of applications for new service, and second is the handling of charter regulations.

I. APPLICATIONS FOR NEW SERVICE

We at World Airways fervently believe in the importance of competition in the development of the best possible air transportation system. Supplemental carriers like World, and our earlier counterparts which were known as irregular or nonscheduled carries, have, since World War II, performed a significant role as innovators within this industry. Without overstating the case, I believe it is fair to say we have had a major part in the development of: (1) low-cost coach service, (2) all-cargo service, (3) charter operations, and (4) commercial augmentation airlift program for the Department of Defense. While some of these innovations go back some years, it is our opinion that there are still important opportunities for improvement in air service and that these are most likely to occur under the stimulus of regulated competition.

Early in 1967 World made a comprehensive study of the need for just such improvements in the major transcontinental markets and concluded that although the existing jet coach fare was then \$145.10, it could conduct profitable operations with Boeing 747 equipment at a transcontinental one-way fare of \$75. Its application for authority to conduct such an operation was filed on April 26, 1967 and designated as docket 18468. Subsequently, a motion for expedited action was filed which contained a detailed economic analysis of our plan, a summary of which I have attached to my testimony as appendix A. There was never any Board action on this motion and, in fact, the only Board action ever taken with respect to the World proposal was in order 73-11-101 on November 21, 1973, when World's proposal in docket 18468 was dismissed as stale. This was 6½ years after it had been filed!

Our proposal obviously involved intense competitive problems and we were aware that other facets of the "public convenience and necessity" would have to be balanced against what appeared to us to be significant advantages to the consumer and a significant economic opportunity for World. That critical judgment was taken, however, in the decision of the Board not to consider the application at all, contrary, in our view, to the statutory requirements for expeditious hearings.

We appreciate that not all applications filed with the CAB can be set down for hearing; the agency simply does not have the resources to handle such a workload. But this was a proposal of major consequence submitted by a carrier which both: 1) was acknowledged to be one of the most efficient in the airline industry, and 2) possessed a substantial net worth—in other words we clearly had the ability to perform. World was, in the terms of the statute, unquestionably "fit, willing and able."

We were the victims of a "route moratorium" three years before it was evident to others. At the very least we were entitled to know why the Board was unwilling to consider our very serious proposal.

II. EXCESSIVE REDTAPE IN CHARTER REGULATIONS

Filing fees.—Pursuant to part 389 of the Board's special regulations, the Board imposes fees for special services, the filing of documents, and the issuance of licenses. When grouped by type of activity, these fees provide an excellent index of activity at the CAB; for a recent 12-month period this information is shown in the following tabulation:

CAB FILING FEES FOR TWELVE MONTHS ENDED JUNE 30, 1974

Subject matter	Fees paid	Percent of total fees
Tariff matters.....	\$194,500	39
Charter matters.....	118,415	24
Agreements.....	57,500	12
Scheduled route applications.....	25,500	5
Air taxi registrations.....	23,375	5
Mergers and acquisitions.....	23,080	5
Air freight forwarder applications.....	11,300	2
Miscellaneous.....	41,495	8
Total.....	495,165	100

For the same 12 months, the charter revenues of the U.S. carriers—scheduled and supplemental together—represented only 3 percent of total U.S. carrier revenues. I suggest to you that this discrepancy represents over-regulation of the charter segment of the industry—perhaps by a factor of almost ten. The level of charter fees is a short-hand way of saying that the current charter regulations at the CAB are unbelievably complicated, time-consuming and expensive. No one seems to ask the question as to why it is necessary.

Paperwork.—It is difficult to convey the burden which the Board's regulations impose with respect to some of our charter operations, but the following tabulation is some indication of the volume of the filing requirements:

TYPICAL TRAVEL GROUP CHARTER APPLICATION FOR A SINGLE FLIGHT

<i>Title of Document</i>	<i>Number of pages</i>
Transmittal letter.....	1
TGC option agreement.....	2
TGC agreement.....	7
Rider to surety bond.....	2
Contract between organizer and participants.....	15
Terms and conditions for TGC participants.....	6
TGC pleasure-break application form.....	1
TGC passenger name list.....	28
Total	62

Even the above list tends to understate the problem. The passenger name list, for example, must: 1) have the passengers numbered, 2) alphabetized, 3) identified as to whether they are on the main or standby list, 4) identified as to whether they are departing or returning passengers, 5) we must show the address and telephone number for each person, and 6) we must also provide verification of identity through some document such as passport or social security card, which in turn must be specified. I have attached to my testimony as appendix B a copy of the filing instructions as they appear in the Board's regulations to add some of the flavor of what we at World regard as over-regulation.

Another major burden of the regulation is its lack of flexibility. If the above flight were to be modified in certain minor respects: if it were to start a day earlier or return a day earlier; if it were to serve one additional city or one fewer cities; if a few people were to be added to the passenger name list; then instead of a simple amendment to the previous filing, an earlier new application would have to be presented. If these changes occurred sufficiently in advance of the planned departure the only problem might be the burden of the additional paperwork. But if these changes occurred within 90 days of the flight's departure, perhaps the entire flight would have to be cancelled because the advanced filing requirements of the regulation could not be satisfied.

III. RECOMMENDATIONS

Many of our procedural problems have their origin in the substantive fabric of the Federal Aviation Act and its implementing regulation. As this subcommittee knows, these are, in part, now under review by the Aviation Subcommittee

of the Senate Commerce Committee, which has been considering S. 421. There are other, perhaps less ambitious, steps which can be taken to improve the situation, and on behalf of World Airways I would like to suggest one: the independence of the Office of Consumer Affairs at the CAB must be guaranteed by Congress, and it must be provided a staff adequate to its responsibilities.

This office was established only last October, as a kind of administrative ombudsman, and perhaps as a token acknowledgment that the consumer should be represented. But if it is to be anything more, for example, than a clearinghouse for complaints about lost baggage, it must be strengthened. We believe it is essential for the Congress to spell out what it expects this office to do, and then to provide it with both the authority and the resources to do its job.

Had such an office existed in 1967, it might have pressed for a Board decision as to why a proposal to cut the transcontinental fare by almost 50 percent should not at least be examined through an evidentiary hearing. And today an adequately staffed Office of Consumer Affairs might make a cost/benefit analysis of the charter regulations, and press the Board to explain why the mountain of paperwork now required is in the public interest.

BIOGRAPHICAL NOTES ON WILLIAM A. HARDENSTINE

Mr. Hardenstine was born on May 21, 1922 in Phillipsburg, New Jersey. He attended New York University and Dartmouth College and received a B.S. degree in transportation and traffic from New York University. He served in the U.S. Navy from 1942 to 1949 and again from 1951 to 1957 and held the rank of Lieutenant Commander. He was awarded seven battle stars while in the Asian-Pacific theater. His past employment in the transportation and aviation industry included the positions of regional sales manager, assistant vice president of operations, and vice president of sales of Overseas National Airways, Inc. He joined World Airways in 1963 as vice president of sales and was promoted to senior vice president of sales in 1970. He was elected director of World Airways, Inc. and Worldamerica Investors Corp. in 1971. He is a member of: Rotary International, American Society of Travel Agents, Pacific Area Travel Association, Discover America Travel Org., Smithsonian Assoc., National Indus. Recreation Assoc., Travel Council, Alumni Assoc. of Dartmouth and New York Universities.

APPENDIX A

SUMMARY OF THE PROPOSAL OF WORLD AIRWAYS, INC. IN CAB DOCKET 18468 FOR A TRANSCONTINENTAL THRIFT SERVICE

The major California-east coast markets are not being adequately developed. Although there are seven metropolitan areas in the State of California of approximately 1 million persons or more,¹ nonstop transcontinental service has been offered consistently at only two airports: Los Angeles International and San Francisco International. Both are highly congested. Three other airports in California (excluding San Diego) serve populations of several million each and are now capable of handling transequintinental nonstop operations. Two of these airports—Ontario and Long Beach—have no such transcontinental service. The third, Oakland, has token service. All three points—Ontario, Long Beach, and Oakland—have independently requested expedited action on World's application.²

Development of these transcontinental markets has been inhibited by excessive fare levels as well as by neglect of other airports. The lowest promotional fare today is considerably higher than the lowest fare 12 years ago. Basic coach fares have never been higher, and have not fluctuated in 5 years.

The existing transcontinental carriers have little incentive to engage in genuine fare competition or to spread their operations to other airports. Experience

¹ See appendix 17. An eighth area, San Jose, has a population in excess of 900,000.

² The city of Oakland filed a petition dated Sept. 8, 1967. In late September, petitions were filed by the city of Long Beach and Long Beach Chamber of Commerce and the city of Ontario, Ontario Chamber of Commerce and Friends of Ontario International Airport Association.

shows that service improvements under these circumstances will result only from the entry of a new aggressive carrier.

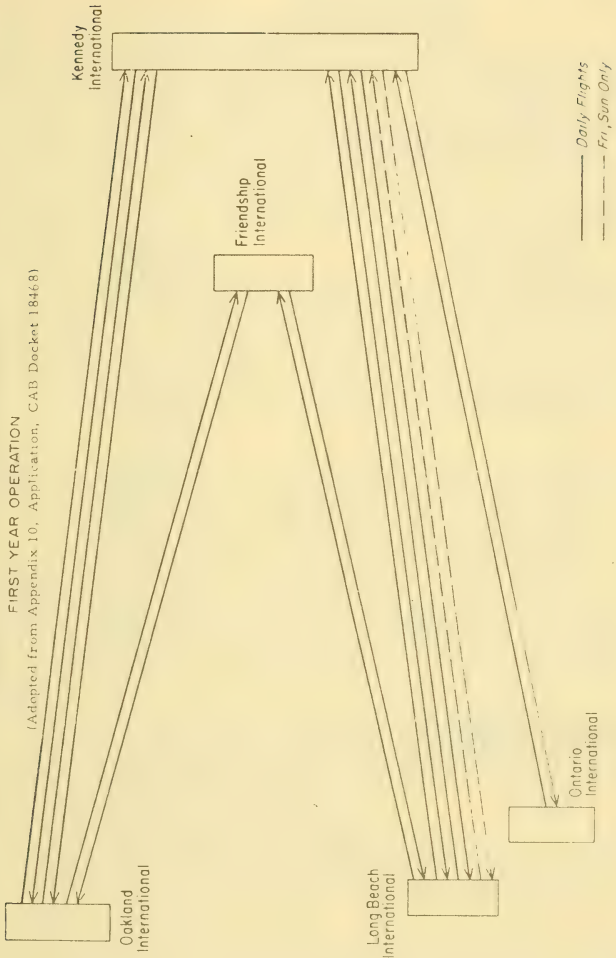
World is that carrier. It will operate nonstop service to New York and Baltimore/Washington from the Long Beach, Oakland, and Ontario airports. It will offer a single-class service with more spacious seating than available to the coach passenger today. And it will offer a fare of \$79 with B-707 equipment. With the delivery of World's B-747's the fare will be reduced to \$75. These fares will accomplish an average reduction of approximately 50 percent in the cost to the public for basic transcontinental coach service. Unlike current promotional tariffs, the proposed fares will be available to everyone, everyday. Combined with the service at new airports and with other promotional activities envisioned by World, the low fares will produce a radical increase in the use of transcontinental air service, particularly for pleasure travel.

WORLD AIRWAYS, INC.

WORLD'S Tentative Service Proposal

FIRST YEAR OPERATION

(Adopted from Appendix 10, Application, CAB Docket 18468)



ESTIMATED OPERATING RESULTS1st YEAR OPERATIONTraffic Statistics

Passengers	547,826
Revenue Passenger Miles (000)	1,348,092
Passenger Ton Miles (000)	140,876

Revenues

Passengers, Gross	\$43,273,254
Less 6% Dilution	<u>2,595,695</u>
Passenger Revenue	\$40,681,559
Cargo and Mail	2,610,400
Other Revenue	<u>438,261</u>
Total Revenues	\$43,730,220

Operating Expenses

Aircraft Operating (Excl. Depr.)	\$13,415,460 <u>1/</u>
F.E. Depreciation	<u>2,990,000</u>
Sub-Total: Direct Costs	\$16,405,460
General and Administrative	\$13,938,630
Contingency	1,600,000
Depreciation of Ground Equipment	294,750
Amortization of Preoperating Expense <u>2/</u>	<u>227,600</u>
Sub-Total: Indirect Costs	\$16,060,980
Total Operating Expense	<u>\$37,466,440</u>

Estimated Operating Profit	<u>\$ 6,263,780</u>
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1/ Flying Operations (11,116,140) plus total maintenance including burden (7,299,320).

2/ Five-year amortization: Page 6 of this appendix, "Estimated Investment".

Source: Appendix 11, Page 4 of 6, CAB Docket 18468

APPENDIX B

INSTRUCTIONS FOR TRAVEL GROUP CHARTER APPLICATION

Introduction

Form 372a¹ is to be used in making the various filings of the travel group charter passenger name list (TGCPNL). The list is first required to be filed by the travel group charter organizer (CO) no earlier than 90 days and no later than 60 days before the scheduled date of departure, pursuant to sections 37a.22 (b) and (d) (first filing); and a photostatic or similarly reproduced copy of this form, stamped by the Board, is to be used as the enplanement list required to be prepared by the direct air carrier (DAC), and filed after the departure or return flight is performed, pursuant to section 372a.50(a). The information required by all items on form 372a shall be typewritten; however, names of assignees entered in item 11 subsequent to the first filing, and items 12 (passenger status), 15 (enplanement identification) and 18 (prepared by), may be handwritten in pen.

Procedures for First Filing

The CO will prepare form 372a according to the instructions set forth and shall, in its first filing, file an original and two photostatic or similarly reproduced copies (not carbons) accompanied by a self-addressed and postage-prepaid return envelope, with the Board's Supplementary Services Division, Bureau of Operating Rights (BOR). BOR will stamp the original and two copies to validate their receipt, and return the two stamped copies to the CO. One stamped copy will be for use by the DAC who is to perform the TGC departure flight and the other stamped copy will be for use by the DAC who is to perform the TGC return flight.

Preparation of Form 372a

Each page provides for twenty (20) TGC names. Items 1, 2, and 6 through 15 will be completed on each page on which original participants (OP's) are listed, and items 16 through 18 will be prepared only on the first page, by the CO or DAC, as the case may be.

Note: Since only verified and stamped copies of form 372a may be used for entering the names and identification of such assignees as may be substituted for original participants subsequent to the first filing, the CO shall submit in his first filing a sufficient quantity of pages with items 1, 2 and 6 through 10 completed to provide space for making entries for the maximum permissible number of assignees, i.e., 15 percent of original participants.

Item 1, page of.—The left blank is to contain a sequential number beginning with "1" representing the page number in the set of pages submitted for the TGCPNL. The right blank is to contain the total number of pages in the set for the TGCPNL.

Item 2, TGC Number.—Enter the number assigned by BOR for the TGC program, e.g., 74-37; the CO should further identify the passenger lists filed within the program by assigning another number for each passenger list filed, such numbers to be in sequence and begin with "1." Thus, the first passenger list filed in the program 74-37 would be 74-37-1, and the fifth list filed would be 74-37-5.

Item 3, Date of First Filing.—Leave blank.

Item 4, Date Departure List Filed.—Leave blank.

Item 5, Date Return List Filed.—Leave blank.

Item 6, Name of Charter Organizer.—Enter the name of the charter organizer, exactly as shown on the TGC option filed with the Board.

Item 7, Name Departure Trip Direct Air Carrier.—Enter the name of the DAC who will perform the departure journey for the TGC, exactly as shown on the TGC option filed with the Board.

Item 8, Name Returning Trip Direct Air Carrier.—Enter the name of the DAC who will perform the return journey for the TGC, exactly as shown on the TGC option filed with the Board. (Although this will generally be the same as shown in item 7, ditto marks are not acceptable. The item must be completed.)

Item 9, Departure Journey.—Enter details about the departure journey on this line. Show the origin and destination as city, state (or otherwise), and country.

¹ Copies are obtainable from the Board's Publications Services Section.

Airport names are acceptable only as an addition to the city, state, and country information. The date should appear in the form YYMMDD where YY represents the last two digits of the current calendar year, MM represents the month in a scale where 01 is January and 12 is December, and DD is the day of the month from 01 to 31. For example, December 10, 1974, would be shown as 741210. The ADP coding boxes to the left of item 9 are intended for the 3-letter codes of the origin and destination, i.e., Washington, D.C. USA (National Airport) to Baltimore, Md. USA should be shown as DCABAL. Enter these if known, otherwise, leave blank.

Item 10, Return Journey.—Follow the same directions as for item 9 above in describing the return journey.

Item 11, Passenger Sequential Number.—Two or more pages will be required to list the names of original participants and any tour conductors or assignees. Each original participant is to receive a sequential number beginning with "1", so that the last sequential number shown on TGCPNL at the first filing should equal the number of original participants. At enplanement, the DAC shall enter in item 11 the name of each assignee.²

Item 12, Passenger Status.—These four (4) columns are to be marked with an "x" as appropriate to show that the passenger named on this line is an OP, an assignee (ASNE), departing enplaned passenger (DEP), or returning enplaned passenger (RET). The TGCPNL at first filing will contain "x's" only in the (OP) column. The total number of "x's" in the OP column for all pages must be equal to at least 90 percent of the number of seats contracted for. The DAC performing the departure flight will mark an "x" in the departure column and the DAC performing the return flight will mark an "x" in the return column. Each DAC will complete items 12 through 15 for each assignee.

Item 13, Name.—Enter the prospective passenger's last name first, followed by a comma, the first name or initials and the middle initial, if any (for example, Doe, John A.). Check block whether male or female. Enter the name on one line only, if necessary, by dropping any element other than the fully spelled out last name. Enter all prospective passengers' names in alphabetical order, according to the last name and in the case of like last names, according to initials of first names.

Item 14, Address and Telephone No.—Enter the address in enough detail to allow contact by mail, and telephone number (including area code, if any).

Item 15, Enplanement Identification.—The DAC performing the departure or return flight will verify each enplaning passenger's identity, using as the documentary source of such verification the passenger's passport, or, if he has no passport, using his travel identity document. Only if no passport or travel identity document is available should any other document be used, preferably a Social Security card. When a passport or social security card is used for identification, enter only the number in the appropriate space. Where a travel identity document or document other than a passport or social security card is used, then, in addition to entering the number in the appropriate space, a brief description of such document should also be noted.

Item 16, Column Totals.—Boxes shown are to be used for recording the total "x's" shown on all the pages of this TGCPNL in the particular column. These entries must appear only on page 1 of the TGCPNL. The box under the column head OP (titled A-OP) should contain the total number of original participants and the box under the column headed ASNE (titled B-ASNE) should contain the total number of assignees. The box under the column headed DEP (titled C-DEP) should contain the total number of departure flight passengers and the box under the column headed RET (titled D-RET) should contain the total number of return flight passengers. The A-OP figure will be shown on the First Filing. The B-ASNE, C-DEP, and D-RET figures will be shown on the filings made by the departing DAC and returning DAC, respectively.

² Where the number of seats contracted for includes one or more seats for tour conductors, pursuant to section 372a.14(d), then: 1) following the last sequential number for original participants there shall be entered, in item 13, either the name of each conductor, if known at the time of first filing, or the letters "TC", and 2) at the time of enplanement the DAC shall complete the information required by item 15, as to tour conductors named in item 13, and if item 13 contains only the initials "TC", then the DAC shall also enter the tour conductor's name in item 13.

Item 17a.—This computation will be completed by the CO. The calculation requires a division of the total number of passengers listed in the A-OP column by the total number of seats contracted for. The total number of A-OP column must equal no less than 90 percent of the seats contracted for. Express the result to the nearest tenth of a percent.

Item 17b.—This computation will be completed by the departure DAC. The calculation requires a division of the number of assignees enplaned on the departure journey by the total number of original participants. Express the result to the nearest tenth of a percent.

Item 18, Prepared By.—Enter the signature of the person preparing the form for the CO, the departing DAC, and the returning DAC, as the case may be.

PREPARED STATEMENT OF RAYMOND J. RASENBERGER

North Central Airlines has asked me to appear on its behalf at today's hearings. I would like to begin with a brief description of North Central. Headquartered in Minneapolis, North Central is one of the eight local-service air carriers certificated by the CAB. North Central was incorporated in 1944 as Wisconsin Central Airlines and was initially certificated by the CAB in 1946.¹ Today, its route system extends from New York to Denver, encompassing some 90 cities in 13 states and Canada, operated with a fleet of nineteen 100-passenger Douglas DC-9-30 fan jets and thirty-one 48-passenger Convair 580 prop jets, and boarding an average of more than 12,000 passengers each day. Among North Central's accomplishments are ranking as one of the 50 largest U.S. transportation companies,² first listing by a local service carrier on the New York Stock Exchange, and a profitable operation for 20 of the last 21 years under the current management. My firm has served as Washington counsel for North Central, particularly in matters involving CAB regulation, for approximately 10 years.

The subcommittee staff has asked that we review at these hearings North Central's experience with the CAB's so-called "route moratorium." I understand the committee would like to explore our ideas, as well as those of other airlines, about possible changes in procedures now followed by the CAB to determine whether to hear new applications for route authority.

We will try to be as responsive as possible to this request. We are, of course, constrained from arguing the merits of our applications in any forum other than the CAB itself. We will be pleased, however, to summarize for the subcommittee the facts, all of which are in the public record, relating to North Central's efforts to have its route applications set down for hearing.

Let me also make clear at the outset that, while North Central has been notably unsuccessful in getting its route applications heard in recent years, neither North Central nor I as their counsel want to be associated with across-the-board attacks on the regulatory system in general or the CAB in particular. In our view, the Civil Aeronautics Act of 1938 (now the Federal Aviation Act) is generally an exemplary piece of legislation—a collection of extraordinarily wise policies and sound procedures. The proof of this is in part the result we see today—an airline industry that has come through three decades of incredibly rapid technological change and growth and now provides the United States with an unparalleled system of air transportation.

I particularly want to emphasize the word "system" because too often the economic interrelationship of the various portions of our air transportation network is forgotten, particularly by those who advocate unregulated entry. Air service to weak points is supported by routes connecting stronger points. Stronger points obtain their strength in part from traffic flows which are generated by weaker points. North Central as a local service carrier particularly is aware of this relationship. Unless that interrelationship is fostered under a statutory scheme such as we now have, the result will necessarily be the disappearance of air service at many small communities now receiving it and poorer, less reliable service at many others.

Of course, the Federal Aviation Act alone has not built the system we have. It took an agency to make it work. By and large that agency, with the help of a remarkably competent and independent staff, has done an outstanding job of particularizing the statutory directives into sound policies. North Central has

¹ North Central Case, 7 CAB 639 (1946).

² Fortune, Double 500 Directory, July 1973.

had many disagreements with the Board over particular policies and actions—and certainly the recent refusal to hear our route applications is a major example—but in terms of a longer and broader view we think the Board is entitled to the thanks of Congress and the public for a job well done.

DEVELOPMENT OF THE HEARING REQUIREMENT UNDER SECTION 401

To understand the current route moratorium, it is useful to review briefly some of the background of CAB route regulation and the related hearing requirement. The domestic airline industry began not as a passenger system but rather as a system for carriage of mail. Airmail contracts sustained the industry from the period following World War I through the early 1930's when, with the development of new engine and structural technology, it became possible to carry mail and a substantial number of passengers. It was at this point that a domestic passenger route system began to emerge, but airmail contracts still marked the difference between a profitable and an unprofitable operation and the obtaining of these contracts was the key to success.

Although the Air Mail Act of 1930 provided for competitive bidding, the Post Office Department encouraged the carriers to work out the details in private, leading to the notorious "spoils conferences" and an industry that, by 1934, was dominated by three manufacturing and carrier combines. Through the direct intervention of President Roosevelt and new airmail legislation in 1934 and 1935, the system was made somewhat more equitable but it still favored the large, financially strong carriers who could afford to underbid on the airmail contracts. On the other hand, these carriers were seriously concerned about unregulated competition by carriers that did not have airmail contracts.

The end result was the Civil Aeronautics Act of 1938, the economic provisions of which were reenacted virtually intact in the Federal Aviation Act of 1958. Two sections of that Act bear directly on the processing of route applications. The first is the unequivocal requirement in section 401(c) that any application for a route "shall be set for a public hearing, and the Board shall dispose of such application as speedily as possible."³ Patterned after the hearing requirement in the Interstate Commerce Act, this provision was the legislative disavowal of the "spoils conferences" and was meant to insure that henceforth, all matters concerning route awards would be decided on the basis of a public record.

With an industry that was still in its infancy, this provision was fully implemented in the early years and—with the exception of World War II—route applications were generally heard "as speedily as possible." The controversy in this period—and still today—centered on another provision of the Act, section 102(d), which states that one of the fundamental goals of CAB regulation is "competition to the extent necessary to assure the sound development of an air-transportation system properly adopted to the needs of the foreign and domestic commerce of the United States, of the postal service, and the national defense."

"Competition to the extent necessary" is an ingeniously vague term, but its legislative history clearly indicates that it was included in the Act to make certain that, if competition could be provided economically, it should be authorized.⁴ Several large carriers, the most notable of which was Pan American, advanced another view: namely, if the incumbent carrier was providing reasonably adequate service over a route, that carrier was the "chosen instrument" for that route and competition should not be authorized. One of the CAB's earliest actions was to reject the "chosen instrument" theory and to cast a strong affirmative vote for competition in the airline industry:

³ The "as speedily as possible" requirement is over and above the requirement in section 6(a) of the Administrative Procedure Act (5 U.S.C. 555) that "[w]ith due regard for the convenience and necessity of the parties or their representatives and within a reasonable time, each agency shall proceed to conclude a matter presented to it." As this provision appeared when the Administrative Procedure Act was initially enacted in 1946, it required each agency to "proceed with reasonable dispatch to conclude any manner so presented" and was specifically intended to create a "legal requirement that no agency shall in effect deny relief or fail to conclude a case by mere inaction." (S. Rept. 752, 79th Cong., 1st Sess. 18 (1945).) The recodification of the Act in its present form restates, "without substantive change, the laws replaced." (Pub. L. 89-554, 89th Cong., 2d Sess., section 7(a).)

⁴ This provision was not included in earlier versions of the Act in which the views of the incumbent airmail carriers were dominant, but was added at the insistence of Government representatives. Jones, *Antitrust and Specific Economic Regulation: An Introduction to Comparative Analysis*, 19 ABA antitrust section 261, 309 (1961).

"As the justification for competition in any case does not depend upon the failure or inability of an existing carrier to render adequate service, neither does its ability and willingness to furnish a sufficient volume of service in itself constitute a bar to a competitive service. The greatest gain from competition, whether actual or potential, is the stimulus to devise and experiment with new operating techniques and new equipment, to develop new means of acquiring and promoting business, including the rendering of better service to the customer and to the Nation and affording the Government a comparative yardstick by which the performance of the carriers may be measured. Competition invites comparison as to equipment, costs, personnel, methods of operation, solicitation of traffic, all of which tend to assure the development of an air transportation system as contemplated by the Act."⁶

While this was certainly not a policy of free entry, it nevertheless made it clear that the route system was not fixed when there was simply a carrier providing service—the question, instead, was how many carriers could provide that service economically. And, when combined with the "public hearing . . . as speedily as possible" requirement, those provisions produced, in the next two decades a vast system of domestic and international air service.

Not that the CAB granted every application it heard or, for that matter, heard every application on its docket. To the contrary, the CAB quickly abandoned the first-come-first-served policy of assigning priority to applications and used its discretion in this area to approach route applications in a logical sequence, setting down cases in individual markets when adequate support was shown, or instituting on its own motion larger area investigations designed to examine at one time a number of interrelated issues of route authority.

As time passed and the Board found itself faced with a rapidly growing docket of route applications, it took several steps aimed at helping it sort out those most worthy of prompt hearing. In 1962, the Board adopted standards for priority of hearing (14 CFR 399.60) and these are, at least nominally, still in effect. In 1968 and 1969 the Board adopted special procedures under subpart M and subpart N of its procedural regulations. There was a commendable effort to shorten sometimes elaborate hearing procedures in connection with the applications for removal of route restrictions. The thought was that such applications tend to be relatively noncontroversial and thus lend themselves to simplified procedures.

Another action taken by the Board was the establishment in 1963 of subpart K, a standardized system of forecasting the costs of operating routes proposed by local service carriers. In recent years, with the advent of the route moratorium, subparts M and N have fallen into disuse. Subpart K costing, however, is still used. As noted below, subpart K tends to overstate the cost of operating a new route and makes it extremely difficult to show that any new service can be operated profitably. Subpart K results have been relied upon frequently by the Board to support a decision not to hear a route application.

Finally, in recent years we have seen a shift to the "show cause" procedures in those instances where the Board has agreed to entertain relatively minor applications for new route authority such as "route realignments." Under those procedures the Board announces a tentative decision first on the basis of staff recommendation. These tentative findings are later made final if, as is usually the case, no one demands a hearing in terms which the Board finds convincing. The precise limits of Board power to act by show cause order have not yet been established.

NORTH CENTRAL'S EXPERIENCE PRIOR TO THE 1970'S

Before examining the North Central applications that have been victims of the route moratorium, it is important to note the company's experience in more "normal" times. North Central has received many awards of new authority in the 79 years it has been certificated. Four of the most significant for North Central took place in the last half of the 1960's:

1. *Twin Cities*—Denver nonstop authority (CAB docket 18828). On September 26, 1966, the City of Denver applied for nonstop service to the Twin Cities,

⁶ Hawaiian Airlines, Ltd., et al., *Hawaiian Case*, 7 CAB 83, 103-104 (1946). Also see American Export Airlines, Inc.—*Certificate of Public Convenience and Necessity* (Transatlantic Service), 2 CAB 16, 29-31 (1940); Northeast Airlines, Inc., et al.—*Western Atlantic Route Case*, 6 CAB 319, 323-326 (1945); Southwest-Northeast Service Case, 22 CAB 52, 60 (1955); Aloha Airlines, Inc., *Hawaiian Airlines, Inc., Certificate Amendment Proceeding*, CAB order E-25650, at 2 (1967).

Omaha, Phoenix and Las Vegas. On April 12, 1967, Denver moved for an expedited hearing. North Central supported that motion as it applied to its application for Twin Cities-Denver authority. The Board granted the motion on July 25, 1967 and instituted a proceeding which culminated on April 2, 1969, with an award to North Central (order 69-4-20).

2. Milwaukee-Dayton Columbus Cincinnati authority (docket 19692). On November 24, 1967, the City of Milwaukee and the State of Wisconsin applied for new authority to certain Ohio points. The Board instituted an investigation on March 8, 1968 (order E-26488), and North Central was awarded the authority on October 13, 1969 (order 69-10-57).

3. Milwaukee-New York nonstop authority (docket 19097). North Central filed this application in the spring of 1967, together with a motion for an expedited hearing. The Board instituted an investigation on October 11, 1967 (order E-25805), and North Central was granted the authority on June 4, 1970 (order 70-6-36).

4. Omaha-Twin Cities nonstop authority (docket 18401). The City of Omaha filed an application on October 21, 1966, and a broad investigation was instituted on April 13, 1967 (order E-24977). North Central was granted Omaha-Twin Cities nonstop authority on July 6, 1970 (order 70-7-24).

In each of these cases North Central was authorized to provide non stop service in competition with an incumbent carrier. In general, North Central was chosen over other carriers on the basis of conventional elements of public convenience and necessity including the ability and incentive to provide a superior service. In striking the balance in favor of North Central, the Board gave weight to the fact that the new route would strengthen North Central's existing system, thus helping pay for service at many unprofitable points. A characteristic shared by all local service carriers is a very short average aircraft hop and passenger haul. (Even today the average passenger on North Central's system travels only 220 miles, the lowest passenger haul in the domestic airline industry.) By awarding larger, more dense routes to local service carriers, the Board enables them to spread out their operating costs over a larger base as well as increase their internal traffic load. By the same token each of the routes awarded to North Central was made ineligible for subsidy. They remain as such and now contribute to a reduction of North Central's subsidy need.

It should be emphasized that not every North Central application heard resulted in a route award.⁶ The point, however, is that, in a substantial percentage of the cases where applications were heard, it was found that the public convenience and necessity required an award.

POST 1970 EXPERIENCE

North Central has not received a new route award since July 6, 1970.⁷ It has not had an application for new route authority set down for hearing since July 19, 1969.⁸ What has happened in the past 6 years? One thing that hasn't happened is the failure of North Central to file such applications. North Central, as well as a number of other carriers, have continually presented the Board with applications that have either gone unnoticed, have been dismissed without a hearing, or denied a timely hearing.

⁶In the Twin Cities-Milwaukee Southeast Points Investigation (docket 20267), North Central was an unsuccessful applicant for Twin Cities-Milwaukee-Atlanta-Tampa-Miami authority. (Eastern was awarded the route.) Order 70-11-8. In the Chicago-Baltimore Nonstop Service Investigation (docket 21161), North Central was an unsuccessful applicant for Chicago-Baltimore nonstop authority. (TWA was awarded the route.) Order 71-9-64. In fact, in each of the cases where North Central received new authority that authority represented only part of North Central's application.

⁷Omaha-Twin Cities nonstop authority, Order 70-7-24. North Central did receive in the interim an exemption to operate a Duluth-Winnipeg route pursuant to the U.S.-Canada Air Transport Agreement, after agreeing to accept restrictions required by an opposing carrier.

⁸Chicago-Baltimore Nonstop Service Investigation, order 69-6-98. On February 2, 1970 the Board did grant consolidation of a North Central Application (docket 21254) in the Ohio/Indiana Points Nonstop Service Investigation (docket 21162). However, for the last five years no further action has been taken by the Board to move that case toward decision.

North Central's petition for route maintenance—a request that certain restrictions in noncompetitive markets on North Central's system be lifted—was filed on July 16, 1973 (docket 23776) and was granted with modifications by show cause proceedings on February 8, 1975 (order 75-2-22).

In short, North Central encountered the full force of the route moratorium, a policy which came into being quietly and without announcement,⁹ but which has been enforced with unremitting diligence. The statute has remained the same; even the former rule on priority of hearings has remained on the books. The Board has steadfastly refused to hear even the most compelling applications to add competitive service.

This is perhaps the most important point, namely, the moratorium has not only been on competitive awards—it has been on *hearings*.¹⁰ The CAB has simply refused to permit a record to be developed on any of these applications. Three North Central case histories will illustrate the situation:

1. Detroit-Boston nonstop authority (docket 24874). American was granted nonstop authority in this market in 1945, making it one of the oldest nongrandfather routes. By 1968 Mohawk (which was later merged into Allegheny) had one-stop authority, but the market had already emerged as the largest remaining nonstop monopoly. By 1972 American was offering only 4 daily nonstop round-trips with a total of 940 one-way seats per day. The market was producing almost 550 O&D passengers per day. Some of the available seats were also occupied by passengers moving to or from points beyond Detroit. Data filed by American with the CAB revealed that in 1972: the average coach load factor was 66 percent; one-half of these coach passengers moved on flights with a coach load factor in excess of 75 percent; the prime flights routinely experienced coach load factors from 80 percent to 92 percent; and many passengers were being forced to fly first-class by the high-coach load factors.

On October 27, 1972, North Central filed its application for nonstop authority in the market together with a motion for expedition. North Central's motion was supported by the Massachusetts Port Authority, the communities of Detroit, South Bend, Grand Rapids, Kalamazoo, Flint, Lansing, Saginaw, Midland, Bay City and Green Bay, the States of Michigan and Wisconsin and Delta and Northwest. Allegheny, Delta and Northwest also filed similar applications.

Only July 16, 1973, the CAB denied the motion. Order 73-7-18. The grounds given were: 1) no evidence of existing service deficiencies; 2) a lack of sufficient beyond market traffic; 3) a stated "belief" that the proposals wouldn't reduce subsidy; and 4) a brief reference to the impending fuel shortage. Member Minetti concurred but expressed dismay over the policy of "caution." Member Murphy dissented on the grounds that adequate justification had been given for the institution of a hearing.

On August 10, 1973, North Central, South Bend, Kalamazoo and the State of Michigan petitioned for reconsideration, contesting the Board's factual "findings" and raising the legality of a policy of "caution." The various parties lined up in support of or in opposition to the petition much as they had in response to the initial motion. This petition was denied on March 27, 1974, by order 74-3-120 (which, as we shall see, also denied two other North Central petitions), with the CAB indicating that it had broad discretion to control its own calendar and that it would continue to monitor the incumbent carrier's performance in the market.

At the present time, the market has grown to approximately 600 O&D passengers per day while American's nonstop service has declined from 4 to 3 round-trips and 750 seats per day instead of 940.

2. Milwaukee-Denver nonstop authority (dockets 19676 and 26646). United has held nonstop authority in this market since 1946. In 1968, North Central filed

⁹ The existence of the moratorium as a formal policy was recently acknowledged by the CAB staff domestic route study: "Since approximately 1970 cases involving new domestic route authority have generally not been set for hearing and applications filed under subpart M and N have been stayed or dismissed." (Foreward, p. i.)

¹⁰ The one exception to this is the Atlanta-Detroit-Cleveland-Cincinnati Investigation (docket 20724), where the Board, in effect, found itself with a case that was initiated before the moratorium began. The case was set down on February 12, 1969 (order 69-2-55) and on September 4, 1970, the examiner issued an initial decision finding a need for competitive nonstop service in each of the three nonstop markets at issue, by applicants other than North Central. The Board did nothing for almost 2 years, then issued an order on July 28, 1972, finding that the record was "stale" and remanding it for further hearings. (Order 72-7-98). The Examiner, in a second initial decision, again found a need for competitive service in each of these markets. However on May 3, 1974, the Board denied all applications (Order 74-5-18) on grounds that had no basis in the record—the alleged fuel shortage. That order is presently being challenged in the U.S. Court of Appeals for the District of Columbia circuit.

an application for nonstop authority in docket 19676. After North Central received Twin Cities-Denver authority in 1969 with a single-plane restriction on Milwaukee-Denver service, it applied under subpart M for removal of that restriction. The CAB, by order 69-8-77 held that subpart M was not applicable.

On July 31, 1970, North Central moved for an expedited hearing. Continental filed a similar application together with a motion for expedition. Order 71-6-7 denied the motions, again over member Minetti's dissent, "without prejudice to these carriers' right to file new motions for immediate hearing at such time as economic conditions have improved."

By January 5, 1973, North Central felt that the economic condition had improved. The market was generating approximately 110 O&D passengers per day (a 17.3 percent increase over 1971) and United was still offering only 3 nonstop roundtrips per day. Accordingly, North Central filed another motion for expedition, supported by the communities of Milwaukee, Denver and Dayton and the State of Wisconsin. Seventeen days after the motion was filed, order 73-1-56 dismissed the underlying application as "stale." Finally, on July 25, 1973, order 73-7-129 denied the motion and upheld the dismissal, with member Minetti once more dissenting. North Central petitioned for reconsideration, the denial of which was accomplished by order 74-3-120.

North Central has relied the application in docket 26646. At the present time, the market has grown to more than 180 O&D passengers per day while United still offers only 3 nonstop roundtrips.

3. Milwaukee-Philadelphia nonstop authority. Although smaller than the other two markets, it is unique because in 1970 the CAB, in order 70-6-36, found a need for two carrier competitive service and chose Northwest (over North Central and several other carriers) to compete with United. By 1973 Northwest had still not instituted nonstop service and United had dropped out of the market entirely. Accordingly, on April 23, 1973, North Central applied for 5 years, experimental nonstop authority and moved for an expedited hearing. The communities of Milwaukee, Madison, Duluth, and La Crosse, as well as Allegheny and Ozark, supported the motion. United and Northwest answered in opposition.

On August 1, 1973, Northwest instituted nonstop service (1 roundtrip per day). On August 3, order 73-8-24 denied North Central's motion. Another petition for reconsideration was denied by order 74-3-120. At the present time the market is producing more than 110 O&D passengers per day while Northwest still offers only 1 nonstop roundtrip, and United continues to offer no nonstop service.

I believe it would be fair to state that, prior to the post-1970 moratorium, each of the above applications would have at least been noticed for hearing. The facts presented in support of a hearing were not, in our opinion, dissimilar from facts which prior to 1970 resulted not only in hearings but competitive route awards. Again, I am not saying that North Central's application would have been granted in each of these cases. There would have been a number of other applicants in each case, by both local service and trunk carriers. However, the final decision—including the decision on whether or not to award any competitive authority—would have been based on an evidentiary record.

In the process of making that record, the forecasts and contentions of all parties, including the CAB's own staff, would have been subjected to review and cross-examination in public proceedings. In lieu of that procedure we have been encountering under the moratorium what amounts to the de facto denial of applications based upon in camera proceedings within the Board. These internal proceedings involve forecasts and contentions of the Board's staff which are not made public or subject to challenge except to the limited extent they may be reflected in the Board's order of denial. Let me emphasize that we are not questioning the obvious and general need of the Board for confidential communications with its staff. Our concern goes only to those instances where such proceedings are used, in effect, as a substitute for the public hearings required by the statute.

POSSIBLE ALTERNATIVES

Has the domestic air transportation system reached its point of optimum growth and should it now be subject only to consolidation and contraction? We obviously think not, and even if there were some truth in this assumption, that could adequately be determined only through the hearing process.

North Central, as well as other carriers, have not given up and continue to seek new authority that they believe will benefit themselves as well as the entire system.¹¹ The possibility of judicial redress through a mandamus action, while available,¹² is frankly a difficult step to take, if for no other reason that the reluctance of the courts to intervene in matters of agency discretion.¹³

North Central believes that it, and other applicants, are entitled to something more in keeping with the statute than the moratorium of the last 6 years. One possible alternative was suggested by the CAB staff in its recently released study of the domestic route system¹⁴ which called for the adoption of new formal standards for granting hearings. Presumably the standards proposed by the staff would be in lieu of the present moribund rule on priority of hearing.

The staff proposal would have the advantage of equating policy with practice, but unfortunately it seems to create a presumption that most applications should not be heard. The key problem is that the proposed standards—which require the applicant to submit, *inter alia*, a 2-year profit and loss not only for itself but also for any other carrier competing in the market—go far beyond the information the CAB requires in order to make the kind of threshold determination needed to manage its docket. The proposed standards would be, in effect, decisional standards, precisely of the type the CAB might apply to a record developed in a public hearing. Under the staff's proposal, however, there would be no hearing to test the reliability and probative value of the information submitted, and the CAB would still be free to deny hearings at will, something it could do quite easily:

One proposed standard would require an applicant for competitive authority to demonstrate that the proposed operations would earn at least a 12 percent rate of return on investment in the first year. This requires a forecast of traffic and costs. For local carriers, subpart K presumably would be used to forecast the costs. However, that subpart establishes an impossibly high return and tax requirement. Because of a number of faulty premises (including an assumption that every operation will be conducted with newly purchased aircraft), Subpart K requires a profit generally to approximate 40 percent of the operating costs on a typical route proposal. Put another way, unless the applicant can project that revenues will exceed expenses by 40 percent in the first year, a hearing will be denied. In our judgment this burden of proof has no proper relationship to the question of whether or not the application should be heard.

Another proposed standard would deny a hearing unless the applicant could show that it would not divert more than 35 percent of the incumbent carrier's traffic. This may or may not be adequate grounds for denying an application after a hearing, but the fact is that, in the absence of public hearing delving into the question of the incumbent's service in the market, it is simply not possible to determine an acceptable level of diversion.

In short, the alternatives suggested by the CAB staff would seem likely to merely memorialize the *in camera* process that North Central and others in the industry have experienced during the past several years.

What then are the other alternatives? In an ideal world of course priority of hearing standards would not be required because the Board would be compelled to set down and hear all applications in literal compliance with the "speedily as possible" language of the statute. However, this is a "luxury" which the appropriations process has never seen fit to provide, apparently on the assumption that, if all applications were heard promptly, time and money, both governmental and nongovernmental, would be wasted.

¹¹ For example, North Central recently filed an application for Chicago-New Orleans nonstop authority together with a motion for expedition. The market is similar to Milwaukee-Philadelphia in that competitive service was authorized only a few years ago but has since disappeared.

¹² Section 10(e) of the Administrative Procedure Act (5 U.S.C. 706) confers the ability to seek a mandatory injunction to "compel agency action unlawfully withheld or unreasonably delayed." See *International Assn. of Mech.&A. Wks. v. N.M.B.*, 425 F.2d 527 (D.C. Cir. 1970); *Kessler v. FCC*, 326 F.2d 673 (D.C. Cir. 1963); *Harvey Radio Laboratories v. U.S. & FCC*, 289 F.2d 458 (D.C. Cir. 1961); *Dearing Milliken, Inc. v. Johnston*, 295 F.2d 856 (4th Cir. 1961).

¹³ See *City of San Antonio v. CAB*, 374 F.2d 326, 329 (D.C. Cir. 1967); *Frontier Airlines, Inc. v. CAB* 349, F.2d 587, 591 (10th Cir. 1965); *Great Lakes Airlines, Inc. v. CAB*, 293 F.2d 153 (D.C. Cir. 1961).

¹⁴ CAB, Bureau of Operating Rights, *The Domestic Route System: Analysis and Policy Recommendations* (October 1974).

Assuming that the CAB continues to function without the resources to hear all applications speedily, it must of necessity pick and choose some applications for prompt hearing in preference to others. This picking and choosing must be pursuant to some concept of public interest. We think it not unreasonable that the agency should, after appropriate public proceedings, indicate the specific public interest standards it intends to use in managing its docket. To the extent the Board's Domestic Route Study proposes that some standards be adopted after public proceedings, it is a step in the right direction. The difficulty, as noted above, is that the standards proposed by the staff would be such as to assure the de facto denial of most applications without hearings.

What standards would make sense? We believe that, at the outset, any standards fixed should be such as to allow for hearing the maximum number of applications the Board is physically capable of handling. Obviously, the standards must also be somewhat general in nature, and they must allow for unforeseeable circumstances. At a minimum, however, they must be objective in nature, dealing only with readily identifiable facts, such as: whether the market has competition; when service needs in the market were last considered by the Board; and historic traffic flows. As a general principle we do not believe the determination of whether or not to hear an application should be made on the basis of a forecast, whether by a carrier or the CAB staff. In route cases, all forecasts are inherently controversial. The probing of such controversy is the function of the hearing. When the Board decides such matters before hearing, it robs that process of its principal purpose.

In concluding let me emphasize that we fully recognize that the job of establishing fair and reasonable standards for priority of hearing is not an easy one. The above comments represent only our preliminary observations on this matter. As you may know the Board has indicated that it intends to ask for formal comments at a later date on the priority standards suggested by its staff. North Central, possibly in conjunction with the other local service carriers, expect to direct more specific comments to the Board at the appropriate time. Meanwhile, however, we appreciate this opportunity to share at least our initial thoughts on this problem with the subcommittee, and we are hopeful that your consideration of this matter will help all of us think our way towards a sound and constructive solution to this most important issue of administrative procedure.

PREPARED STATEMENT OF HARVEY J. WEXLER

Mr. Thomas D. Finney, Jr., Washington counsel for Continental Air Lines and a member of Continental's Board of Directors, and I appreciate the opportunity to appear at these hearings. They could not come at a more appropriate time. We are at an important crossroads in the air transportation industry. The Civil Aeronautics Board has passed from the era of the sixties when it encouraged competition both in pricing and routes to a period of overly-protective action during the first half of the decade of the seventies. We at Continental believe that it is a time for a sharp change in direction—time to return to giving full force and effect to the competitive mandate of the Federal Aviation Act of 1958.

Before proceeding with the issues before you and our suggestion for a positive plan of action to move forward in the public interest, let me note that we have submitted detailed comments to your committee's questionnaire of November 20, 1974. Our submission was sent December 20, 1974 and I would welcome the opportunity to expand on any of the answers we submitted as well as my testimony today. We have tried to respond as fully as time permitted.

It goes without saying that Continental will assist the subcommittee in any way in which it can. We recognize that the Congress has the ultimate responsibility for the regulation of interstate and foreign commerce. The major limitation on our comments today is that placed upon us by the Board's rules of conduct, namely not to seek any indirect interference—outside the public record—by members of Congress or its committees in pending CAB proceedings. Within that one limitation, I will seek to expose our basic thinking and to answer your questions fully.

Just about four years ago, Continental's president, Bob Six made clear our basic view that competition, in both service and rates, is absolutely essential to preserve a healthy, effective air transportation industry. On February 3, 1971, in his appearance before the Aviation Subcommittee of the Senate Commerce

Committee, Mr. Six warned against the airline prophets of doom and gloom and their anticompetitive proposals. Let me begin my discussion of the substantive issues before you by quoting from his opening remarks:

"I would be the last person to tell you that the airline industry doesn't have serious problems. The management of every airline is experiencing great difficulties and a profit is hard to come by. Times are admittedly bad. But the point I want to stress at this hearing is that the industry can survive without our radically altering the competitive structure of the industry or drastically revamping the regulatory framework.

"The real cause for worry is the disastrous impact on the industry and the public which would result from adopting some of the solutions being proposed by the 'Big Four' and Pan American. We have serious problems today at Continental. But, frankly I am much more worried that the Government might accept some of the big carriers' proposals than I am about working my company out of the current economic slump."

The situation is not much different today. Then, we were in the midst of the 1970-1971 recession. Now, we are in the midst of the 1974-75 recession. There are only two differences. In 1971 most airlines had just finished a relatively poor year in terms of profitability because of a serious regulatory lag in considering fare increases to meet escalating costs. In 1974, the efficient carriers had a reasonably good year. Two of the biggest carriers, Delta and United, had record profits. However, now we face the prospect of further drastically escalating fuel costs. If the President's program of decontrol and import taxes goes into effect, we estimate that our costs would increase by \$33.7 million this year. It would take a substantial fare increase to offset this expense. However, with fares already at a high level, such an increase is likely to drive a significant amount of traffic away from the airlines.

Even with these differences, our judgment has not changed. The real threat remains the anticompetitive remedies urged on the Board in 1971 by the Big Four and Pan American, most of which unfortunately have been adopted by the Board in the last four years. It is the continuation of these anticompetitive policies which threatens the health of the air transportation industry.

The principal remedies advocated by the Big Four in the 1970-1971 period, as discussed by Mr. Six were mergers, capacity agreements, controls on in-flight services, a moratorium on new route awards, and the imposition of further limitations on the supplemental carriers. He opposed all of these solutions then and we oppose them now.

A majority of the Board—and I emphasize majority because there has been a healthy disagreement among the members—have put into effect all but one of these solutions. Fortunately, the merger of health trunklines was denied in the American-Western and Northwest-National merger cases. We took a major role in opposing these mergers.

In addition to these anticompetitive remedies, the Board has stifled fare competition. It brought an end to the promotional fares, which were so successful in generating traffic in the mid and late sixties. Only recently has the Board realized that new promotional fares are needed to stimulate sagging traffic but it has approved them only on a highly restricted basis.

In addition, the Board now seeks to kill our economy fare. This is an unrestricted low fare available in all of Continental's markets—and only in Continental's markets on the U.S. mainland. The fare is presently 10 percent below coach and we have asked to increase the discount to 15 percent below coach to stimulate traffic in these bad economic times. Instead, the Board is seeking to force us to increase the fare to a maximum differential of \$4 and eliminate it altogether on nonmeal flights. This would destroy the marketability of the fare and effectively force us to eliminate it entirely. We have appealed the Board's action to the U.S. Court of Appeals for the District of Columbia. We also presently have before the Court the issue of the Board's route freeze and its seating standards. We have raised the issue of the inconsistency of all three actions with the competitive mandate of the Act.

This brings me to the heart of the issues before you in this phase of your hearing, namely the Board's route policies. I have agreed to testify again in the phase dealing with the Board's ratemaking process. So I will direct my remarks today principally to the Board's route policies and the policy of "open entry" suggested by some prior Administration witnesses.

Continental firmly believes that the regressive policies adopted by the Board must come to an end. Specifically, we urge the following changes:

(1) Expanding service to the public. The Board has had a freeze on new route awards since 1969. This freeze was never justified and should be brought to an end. The oft-heard generalization that the economic problems of air carriers are the result of too much competition in the air transportation system is nonsense. The route awards of the 1960s were in no way responsible for the losses carriers sustained during the 1960-1971 recession. During that period, the smaller, more efficient carriers pulled through with small profits. It was the big carriers who suffered. They simply couldn't respond to changed economic conditions with sufficient rapidity because of their size. Moreover, the two carriers which suffered the greatest number of new route awards to other carriers in their major markets, namely Delta and United, have remained highly profitable. The reason is that they are well managed and even the substantial new route awards of the late sixties are relatively insignificant in their economic impact on the incumbents or the carriers granted awards.

The prime beneficiary of new route awards is the public. New route awards are essential to assure the continued growth of a network of air transportation to meet the needs of all communities. New route awards also assure a competitive industry, responsive to the public needs. Carriers will provide effective service so long as the threat of additional carrier certification hangs over their head. Without that threat, we become lax and seek to extract maximum profits from our routes, often at the public expense. Moreover, new route awards are the proverbial carrot that keeps us pulling our carts. They are the incentive for efficient operation and a high quality of public service.

I might note that the recent study published by the Board's staff purporting to set standards for route awards in the future is no more than an outgrowth of the Board's recent regressive policies. The study proceeds from the wrong policy objective: the protection of carrier profitability. The underlying objective should be to meet the needs of the markets and to properly serve the public. For example, the study urges that competition not be certificated unless the incumbent has a 6 percent overall rate of return. That has nothing to do with need of a particular market. The study also urges that competition should only be certificated when the incumbent and the new carrier can each achieve a 12 percent rate of return in the market involved for the first year of competitive operation. This substitutes carrier profits for public service and the benefits of competition. The study also urges achievement of a 55 percent load factor before competition can be certificated. Load factor alone is not the test of whether a market needs or can reasonably support competitive service. These standards ignore years of Board precedents recognizing "the statutory need for competition as a stimulus to provide good service to the public and to develop a sound air transportation system."

As Congress and the Board have recognized in the past, competition is beneficial in and of itself. In the Board's own words, "competition invites comparison as to equipment cost, personnel, organization, methods of operation, solicitation and handling of traffic, and the like, all of which tend to insure the development of an air transportation system as contemplated by the Act." These important benefits of competition seemed to have been overlooked by the Board in the recent past.

(2) The Board should take immediate steps to liberalize carrier operating authority. Every carrier is hampered in its service by outmoded restrictions, imposed years ago. The justifications for many of these restrictions have disappeared, yet the restrictions hamper us in meeting public service needs and operating more efficiently. The Board undertook a program to consider restriction removal, but this program stalled out. The Board removed only a few restrictions that were non controversial. Others, to which there was opposition which required a hearing, were never set for hearing—a byproduct of the Board's route freeze.

(3) The Board should stop trying to manage carrier service policies. Its restrictive seating standards controvert the statutory mandate to leave schedules, equipment, accommodations, and facilities to the discretion of carrier management. At the same time, the Board should be encouraged to set standards of efficiency for determining rates. We supported the adoption of such standards and the expansion of the elements of carrier efficiency to be tested. The Board should, however, leave actual operating decisions to carrier management. Any carrier that fails to operate efficiently within these standards will sustain losses, but the public won't bear the cost of inefficiency. Any carrier that operates with a higher than average

degree of efficiency will be free to either profit from that efficiency, or offer the public better service or lower fares, or a combination thereof.

(4) The Board should give the carriers much greater freedom to experiment with promotional fares and to compete with lower fares. The Board's present policies are too restrictive and put a damper on experimentation which benefits the public and benefits the industry. We supported and continue to support fare flexibility within at least a zone of reasonableness, as urged by the Departments of Justice and Transportation.

(5) The anticompetitive, capacity restraint agreements should be brought to an end. These agreements were approved on an emergency basis due to the failure of the Big Three and Pan Am in 1970 to respond with sufficient rapidity to economic adversity. They have been extended with the rationale of fuel conservation. Today, they have simply no justification. However, in the recent words of a majority of the Board, they have become the "status quo." All they do now is eliminate competition between the Big Three in their major competitive markets and give each of them tremendous new competitive power in other markets for use against smaller carriers. Surely, United Airlines with a record profit of \$86.4 million in 1974 and \$400 million in cash does not need the protection of these anticompetitive agreements.

None of these changes require any legislative section. In fact, all are consistent with the existing statutory requirements, key among which is the competitive mandate of section 102(d). All of these regressive Board policies requiring reversal presently are being tested before the U.S. Court of Appeals for the District of Columbia on the basis that they are contrary to the statute. We have three such actions pending, as I mentioned earlier. The Justice Department is contesting the capacity restraint agreements.

If the Board does not voluntarily change its direction soon, and is not required to do so by the Court, then legislative action might become necessary. Such action, however, need only reinforce the successful statutory scheme already adopted and should consist of the following elements:

(1) State clearly in section 102 of the Act that there is a statutory mandate in favor of competition. Section 102(d) directs Board action to promote competition. When enacted, Congress made clear that this was intended as a competitive mandate. The Board for years so interpreted it. But recently, a majority of the members have put the emphasis on the qualifying clause which states "to the extent necessary." The Board has gone so far as to thrust aside its own precedents recognizing the existence of a mandate in favor of competition and enunciating a presumption to the effect The mandate can be made even clearer, if the Board persists in its present position.

(2) State clearly in section 401(e) that the Board cannot interfere indirectly with management discretion in schedules, equipment, accommodations, and facilities, through its ratemaking process. Again, the change should not be necessary. We believe the statute is clear and recent action by the U.S. Court of Appeals for the District of Columbia supports this position. But if the Board remains reluctant to permit needed competition, more explicit congressional direction may be required.

(3) State clearly in section 1002(e) that in considering proposals for promotional fares or reduced basic fares, the Board must take into account the generative impact of such fares on traffic. Again the statute would appear to be clear enough, but the Board has taken the position that fares must be strictly cost-related, except for short-term promotional fares. If the Board persists in this position, it will need clearer congressional direction.

(4) Modify the Act to permit carrier freedom to set fares within a zone of reasonableness to be established by the Board. The Board could do this under its existing authority but rejected this approach, as recommended by the Departments of Justice and Transportation and a few of the carriers including Continental. If the carriers are to be free to set fares within a zone, legislative action is required.

There is one other statutory change that would materially improve the competitive climate. That is modification of section 414 of the Act granting antitrust immunity. We agree with the Department of Justice that this section needs to be changed. The Board unfortunately has not given adequate weight to the views of the Justice Department, which has actively sought to protect the public interest through this period of regressive agency action by participation in CAB

proceedings. One way to assure that this will not happen again is to remove the antitrust immunity created by section 414—at least to the extent that action by the CAB approving agreements would not preclude the Justice Department from bringing an action against the parties under the antitrust laws. Section 414 might be retained to protect parties to an agreement from subsequent private suits following a hearing and CAB approval.

Thus, it is our view that a significant change in direction is needed and can be obtained to a large extent under the present statute. If changes are necessary, they are largely changes to reinforce procompetitive provisions already set forth in the statute. The only change in the statute that is necessary is a modification of the antitrust immunity.

This brings me to the issue of "open entry." We agree with the Departments of Justice and Transportation that a change in the competitive environment is necessary. I'm afraid, however, they would get rid of the bugs in the house by burning it down, rather than simply resorting to fumigation.

Open entry might work were we starting from scratch. I would note, however, that prior to the 1938 Act conditions in the infant air transportation industry were chaotic. There was a serious lack of safety and a large element of economic uncertainty, with many carriers in serious trouble and falling by the wayside. A cohesive system of transportation to serve the public was nonexistent.

More recently, contrary to the generally held view, open entry did not work among intrastate carriers in California. That experiment began over 25 years ago. Most of the carriers went bankrupt—14 in all. In fact, I understand that United and Western often found themselves faced with thousands of passengers who had a return ticket on a carrier that was no longer in existence. But for their generosity, the passengers would have had trouble getting home.

This is not to detract from the success of PSA or Air California. We at Continental have great respect for pioneers and innovators. Kenneth Friedkin of PSA was both. He did a great job. But his experience is hardly the basis for a generalization about our national air transportation network. He had a number of unique benefits.

Let me mention a few facts that are often forgotten in citing PSA's success story. First, PSA began in the high density San Francisco-Los Angeles-San Diego markets. San Francisco-Los Angeles is the largest market in the world—by a wide margin. PSA had no service responsibilities to smaller communities. Second, for many years PSA got a real benefit in operating costs—about a 25 percent edge over its competitors, by operating under visual rather than instrument flight rules into the congested Los Angeles and San Francisco International airports. The certificated carriers, all of which had agreed to operate under positive control, were subject to an average of 15-minute delay since they operated under instrument control. In contrast PSA was permitted to pop in and out of these approximately one hour flight segments, thereby saving substantial amounts in operating expense. Third, PSA had no unions and paid its pilots and crews on a piece-meal basis—a specified amount per trip. Fourth, PSA was free of regulation on ticket sales. It used hotel doormen and bellhops, noncoms at the San Diego and San Francisco Naval Bases and anyone who would peddle its tickets. Fifth, and of great importance, PSA and Air California are carefully protected from competition by new entrants by the California Public Utility Commission and have been so protected for almost 10 years. Thus, PSA is the example of how a specialist can enter the air transportation field, pick a few dense markets, and provide service on a highly profitable basis at lower fares. But, it is no argument for unregulated, open entry.

PSA has had a highly protected and special position. No other intrastate carrier has been permitted to compete with PSA and vice versa. Open entry also has not worked well in the air-taxi industry. A large number of carriers have gone in and out of business. The public served by them end up with uncertainty in their air service. Assuring such certainty to the public was a major reason for certificating Air New England to provide needed service to fill the gap created when Northeast was merged out of existence.

In considering this subject, I also ask you to bear in mind that our certificates confer an obligation as well as a benefit. We have good markets; we have mediocre markets; and we have poor markets. But, we must serve them all. And, we live in a fishbowl. If we don't meet our obligations, the Board will quickly hear about it. So long as there is a real threat of new competition being certificated

and we are rewarded for good service and efficient operation by new route opportunities, we'll do our job well—serving the thin routes as well as the fat ones. We even have the incentive to undertake developmental responsibilities, such as Continental's pioneering service to Micronesia and our pioneering effort to develop service between Seattle-Portland and the so-called satellite airports in the Los Angeles and San Francisco areas. We perform these tasks with the hope that our good efforts will lead to new, significant route opportunities.

The theory of the present system is to create a total air transportation network—to bring fast, convenient service to every community that can possibly support it. At the outset, new services often are marginal or may even be operated at a loss. Some come around quickly; some get cross-subsidized for quite awhile by our profitable operations. But the service is provided and a very complete network has been established. This permits the development of the economy of our smaller as well as our large and intermediate-sized communities.

When you look at the results, the situation begins to come into perspective. We have established an unusually complete air transportation network, more complete than anywhere else in the world. Moreover, it is a relatively efficient operation. Our present competitive system has brought the lowest cost to the public of any air transportation system in the world. Illustrative comparisons are shown on appendix A.

Further, the assertion that there have been no new entrants is inaccurate. Use of numbers alone is deceptive. In 1938, there was no local service carrier industry as such. Today, there are 8 regional carriers. In 1938, there were no supplementals. Today there are 10 supplemental carriers. In 1938, many of the trunk-line carriers were tiny and had limited responsibilities. For example, we served only 624 route miles and a geographic area covering 8 cities in 3 states. Today, as the smallest trunkline, we serve 17,020 route miles and 31 cities in 14 states, excluding Micronesia. In addition, there are today two new elements: the intra-state carriers principally in Texas and California and a large number of air-taxi operators. Compared to any other transportation system, this is a highly competitive system. And, the public is getting a high-quality service at reasonable prices.

We have given considerable thought to what would happen if we were to move from the present system of route security to a system of a generally uncontrolled open entry. I hope we haven't become so hide-bound in this industry as to lose sight of the need for innovation and change. After all, Continental under the leadership of Bob Six got to where it is today by bucking the system—pressing for new opportunities and greater competitive freedom. That's why we're fighting so hard today against what we regard as anticompetitive Board policies. We regard their overly-protective policies as contrary to the public interest. We want them changed. We want more freedom and are fully prepared to seek more freedom for others.

In our judgment, however, open-entry and freedom of air carriers to serve any market they choose would be a tragic mistake. Whatever theoretical studies may indicate, we believe the practical consequences would be disastrous.

First and foremost, I think we would risk losing many of the links in the network of air service that have been so carefully created, as each of us scurried to avail ourselves of what we believed to be the most profitable opportunities. Moreover, there would be a constant shifting of our service to improve our profits. The situation for the traveling public and shippers is likely to be chaotic. Smaller communities are bound to suffer from service gaps and, even more significant, uncertainties in their air service. The result would be to stifle the growth of these communities. Industry would tend once again to cluster around the major cities where transportation needs would more likely be met with some continuity. To get reasonably good service to smaller communities would probably require heavy government subsidization.

Second, the threat of oligopoly in this industry would increase. Without security of routes, smaller units would have difficulty surviving. There might well be a lot of small entities going in and out of business, as occurred in the California intrastate situation and in the air-taxi business. But the major elements serving the mass of the public are likely to be reduced to a very small number. Predatory practices by the biggest carriers would be difficult to control as carriers shifted from market to market. Consider for example the economic power of United Airlines with over \$400 million today in cash and liquid securities.

In an open-entry situation, they could control markets at will. In a regulated situation, they are under much more significant restraints not to abuse their substantial power. You must remember that to operate larger jets substantial financing is required. Without security of routes, I can't imagine the bankers and insurance companies lending the millions of dollars needed for ground and air equipment required in our business. If I'm right you'd end up with a few large, high-cost operators serving most of the public. This would inevitably lead to higher prices and a lower quality of service.

Third, technological development might be stifled. Manufacturers won't build new aircraft without firm orders in advance of production from financially secure purchasers. There thus has been no significant development of new aircraft for the air-taxi end of our industry.

Fourth, is the impracticality of the free movement among markets presumed by the proponents of open-entry. No one suggests freedom in international routes. This means that only those carriers without international routes would be without any route security. This would put a carrier like Continental at a grossly unfair position vis-a-vis a carrier with a strong international route structure. We would have no anchor. They would. They could direct their attention to domestic markets feeding into their international routes, creating a strong economic base for their operations. We would be left to fend without such a base. This could result in a domestic route system principally geared to serve international routes.

The nub of it is that we have a reasonably successful air transportation system today. I urge that we try to make it work better before substituting another system.

Let me add that we don't oppose new entry into the industry. What's happened in New England, for example, justified new entry. Other new entrants may be called for to meet special needs or merely to assure the continued healthy spur of competition to the industry. We have no objection to congressional pressure on the Board to consider the applications of new entrants for certificate authority; but we must recognize that without the security of a certificate, financing necessary to success is difficult to obtain on a continuing and reasonable basis.

The Board has been lax in this area. They have been unwilling to consider the applications of new entrants even in good times. Maybe legislation is necessary to force them to do so. We would welcome the opportunity to work with Congress to suggest legislation to require such consideration. But this is a far cry from open entry and the unlimited freedom of carriers to choose which they will serve and which they will abandon.

Let me close on a positive note. The Civil Aeronautics Board in a 1950 decision stated that:

"An objective reading of the Civil Aeronautics Act leaves no doubt that the lawmakers considered competition to be a desirable objective which should be established wherever it is economically feasible and will contribute to the development of a sound national air transportation system."

It's time to return to this kind of positive orientation to permit continued growth and development of our air transportation system. It's time to bring an end to the recent period of regressive policies. I hope that this subcommittee and this Congress will bring its energies to bear to this end. But we have a basically sound system and good statutory framework. Let's try to make it work as the Congress intended in 1958 before radically altering it and destroying our excellent network of air transportation.

APPENDIX A
COMPARATIVE UNITED STATES AND FOREIGN COACH FARES

Market	Miles	Fare ¹
London-Paris.....	209	\$55.17
Lubbock-Lawton.....	205	26.65
London-Frankfurt.....	400	87.90
Colorado Springs-Wichita.....	404	44.44
Lisbon-Milan.....	1,037	158.67
Houston-Phoenix.....	1,010	87.04
Athens-Amsterdam.....	1,466	237.48
Kansas City-Portland.....	1,481	117.59
Osaka-Seoul.....	511	79.12
Amarillo-Houston.....	518	51.85
Tokyo-Seoul.....	725	105.66
El Paso-Los Angeles.....	714	63.89
Taipei-Tokyo.....	1,304	151.39
New Orleans-Phoenix.....	1,301	104.63
Hong Kong-Tokyo.....	1,788	237.87
Chicago-Los Angeles.....	1,744	135.19
Brisbane-Sidney.....	465	51.20
Tulsa-Houston.....	429	45.37
Fertit-Adelaide.....	1,316	130.30
New Orleans-Phoenix.....	1,301	104.63
Darwin-Adelaide.....	1,630	164.00
San Francisco-Houston.....	1,636	128.70

¹ Based upon rate of exchange as of Feb. 11, 1975.

Note: Intra-Canada fares approximate those of the United States. The Canadian fare structure is more tapered than the United States, i.e., Canadian short-haul fares are higher than the United States.

DIALOG BETWEEN CONTINENTAL AIRLINES AND DR. WILLIAM A. JORDAN ON
THE SUBJECT OF CALIFORNIA INTRASTATE AIRLINES

[On February 14, 1975, Dr. William A. Jordan testified concerning the low-fare air service in California provided by intrastate carriers not regulated by the CAB. See p. 452 ff., above. During the hearing of February 18, 1975 Senator Kennedy asked Continental Airlines to comment on Dr. Jordan's testimony. Mr. James L. Mitchell, vice president of regulatory proceedings, responded for Continental. Dr. Jordan replied, and Continental commented further. These materials follow in chronological order.]

PREPARED STATEMENT OF JAMES L. MITCHELL

MARCH 31, 1975

The purpose of this statement is to respond to the request made by Senator Kennedy to Mr. Harvey J. Wexler, senior vice president for international and governmental affairs of Continental when he testified before the subcommittee on February 18, 1975. The request was for any comments Continental might have regarding the analysis of the California intrastate situation presented to the subcommittee by William A. Jordan on February 14, 1975.

I have closely observed the California intrastate situation over my past 29 years in the air transportation industry. From March 4, 1946 to September 1, 1968, I held various positions in Western Airlines, dealing principally with airline scheduling, market research, route analysis, and the preparation of route and rate cases. I began in Western's Los Angeles ticket office. From mid-1947 to mid-1949, I was manager of sales control and research. Two of my major functions were aircraft scheduling and the analysis of traffic and sales data to determine allocation of sales and advertising expenditures. On July 15, 1949, I became director of research and, later, vice president of research. My functions in this capacity included the responsibilities of my previous job together with the responsibility for the preparation, analysis and presentation of Western's route and rate cases before regulatory agencies, including the California Public Utilities Commission.

On September 1, 1968, I joined Continental as staff vice president of corporate planning with responsibilities for all economic planning projects, including such matters as fleet planning, schedule analysis and advanced route planning. On February 1, 1973, I became vice president of regulatory proceedings, where I have continued to work on advanced planning projects and have assumed responsibility for the preparation of all route and rate cases.

Throughout my almost 30 years in the airline industry, I have resided in the Los Angeles area and have maintained a close and continuing interest in the California intrastate air carrier operations. This was an important part of my job at Western, inasmuch as Western had and still has a significant operation in the California intrastate markets.

It was in connection with this activity at Western that Professor Jordan did much of the background work that led to his doctoral thesis on the "Economic Effects of Airline Regulation." In 1960, I hired William A. Jordan as an analyst in Western's research department. His functions were to aid me in the preparation of material for presentation in regulatory matters before the Civil Aeronautics Board and the California Public Utilities Commission. He worked for me in that capacity until 1964, spending part of his time at the University of California on his doctoral work. I am thus intimately acquainted with the material he compiled on the California intrastate carriers.

While at Western, I also worked closely with the California Public Utilities Commission. In fact, during 1949 and 1950, I provided considerable assistance to the staff of the Commission, to help them to learn about the regulation of air transportation. Up to that time, the Commission's activity had been focused on truck and rail transportation. During a portion of their learning period, the Commission staff worked out of my office.

Since moving to Continental, I have maintained my interest in the California intrastate air transportation activity on a personal and professional basis. Shortly after coming to Continental, I interested the carrier in serving the so-called "satellite" airports in the Los Angeles and San Francisco areas. Continental began operations at Ontario in connection with its Chicago-Kansas City-Denver-Los Angeles route, and later was authorized to provide service between the Pacific Northwest terminals of Seattle and Portland and all the satellite airports at San Francisco (Oakland and San Jose) and Los Angeles (Burbank, Long Beach, Ontario and Santa Ana).

Professor Jordan's studies, conducted largely during the period when he worked for me at Western, form the basis for his contention that free entry and exit in the domestic air transportation system would significantly benefit the public. His position, in turn, appears to provide a basis for the position on entry and exit taken by the Department of Justice. See particularly page 18 of Mr. Kauper's testimony of February 6, 1975, and page 7 of Mr. Baker's testimony of February 18, 1975.

I believe that Professor Jordan has accurately and quite fully set forth the history of the California intrastate situation prior to September, 1965. I depart from him, however, in the conclusions he draws from these facts. His principal conclusions from this experience are that: 1) the intrastate service pattern produced far healthier results for the traveling public than did the regulated U.S. domestic industry; 2) absent regulation, there would be 200-300 air carriers in the United States, and fares would be lower; and 3) the period of "adjustment" after the institution of free entry and exit would be in the order of 10 years. I believe that the history he has compiled refutes these conclusions and, in fact, establishes that: 1) there would be serious instability in the markets that are served, and many markets served today would not be served; 2) this insta-

bility would not decrease after an initial period; 3) a large number of small carriers would enter and exit, and their entry and exit would have little to do with public need for service; 4) after a prolonged "shakedown" period which would exceed the 20 years experienced in the comparatively simple California situation, a small number of large carriers would eventually dominate our air transportation system; and 5) over the long term, fares would be higher and service would be inferior to that existing under a properly regulated system.

1. *The Relevance of the California Intrastate Experience.*—I agree that the only experience that exists on what has occurred with a free entry and exit system in the air transportation field is the California intrastate experience. At least for a 20 year period from 1946 to 1965, carriers were completely free to enter into and exit from service within this one highly populated area of the United States. However, there are some limitations on generalizing too much from this experience. The area is limited geographically. The weather conditions, the mileages involved, and the high population density of the principal cities served, namely Los Angeles, San Francisco and San Diego, present ideal operating circumstances.

The only other experiences with open entry are the pre-1938 era on a national basis and the air-taxi situation. Prior to 1938, there was no national regulation on entry or exit. At the time regulation was instituted, the carriers were in financial difficulty, and safety problems existed. One significant purpose of federal regulation was to provide route security in order to bring about greater financial stability in the air carrier industry. But commercial aviation was in its infancy. Certainly, it is fair to conclude from the circumstances that existed during this era that: 1) the lack of route regulation could not be said to have been beneficial, and 2) the lack of safety regulation was detrimental.

The air-taxi situation today indicates that large numbers of smaller operators will enter the air transportation industry if permitted to do so. They can serve in special market situations. But, they evidence a considerable lack of economic stability. As the United States Court of Appeals noted in *Hughes Air Corporation v. CAB*, 492 F.2d 567, 577, (D.C. Cir. 1973):

"In fiscal 1970 the entire commuter industry, numbering 126 firms, generated total estimated revenues of \$70 million, or an average of \$550,000 per firm. A 1970 study done for the Department of Transportation found that the commuter industry as a whole has been operating at a loss, with individual firms' performances ranging from substantial losses to only slight profitability. *The failure rate among commuters is quite high and old firms leave and new ones enter the industry regularly.*" (Emphasis supplied.)

Some air taxi operators who have achieved stability did so either by concentrating in high-density vacation markets or by tying themselves to a certificated carrier through a commuter "feeder" agreement which passes on the route security enjoyed by the certificated carrier.

The Texas intrastate situation is of little relevance, since the sole intrastate carrier is regulated by the Texas Aeronautics Commission. Southwest Airlines now operates an intrastate monopoly, similar to the monopoly intrastate routes in California.

2. *California Intrastate Service 1946-1965.*—Set forth in appendixes A through C is the information on the California intrastate carriers operating during the 20-year-period of free entry, the cities served and the period of service both by carrier and service. The information is obtained from Professor Jordan's book. When this information is displayed, certain conclusions emerge:

First, while 16 carriers entered during this period, 14 of them exited. In essence, there was an 87 percent failure rate. There was little or no head-to-head competition at any time during the 20 years. One of the two surviving carriers provided only a specialized Saturday and Sunday service to Brown Field, a secondary airport 20 miles south of San Diego, on the Mexican border. This operation was conducted for the purpose of carrying passengers to and from the Caliente Racetrack on package deals for the operators of the racetrack. As far as truly scheduled service between the major California markets is concerned, the period of free entry produced a single carrier monopolizing all of the California markets. That single carrier had evolved as the only such carrier by February, 1965, eight months prior to the legislation.

Second, most of the carriers lasted only a short period of time. Nine carriers, or 56 percent of the entrants, stayed in business for periods of less than 1 year. Seven lasted 6 months or less, and the other two lasted only 7 and 9 months. Of the remaining 7 carriers which lasted more than a year, 5 lasted less than 2 years.

Third, the carriers came into existence in two clusters. Eight came into existence in the 1-year period January 1949 to January 1950. Six had failed by May 1950. Another six came into existence during the period May 1962 to September 1964. All went out of existence by the mid-sixties. The entry of these carriers was not related to any pressing public demand for intrastate air transportation, but to the sudden, easy availability of excess aircraft.

During the late-forties, cheap, used military aircraft became available. Virtually all of the intrastate carriers that came into existence in the 1949-1950 period (six out of eight) were offshoots of supplemental air carriers operating used military equipment out of their bases at Burbank and Oakland. The following is a list of those relationships:

<i>Intrastate carrier</i>	<i>Supplemental carrier tie-in</i>
California Central Airlines-----	Airline Transport Carrier.
Robin Airways-----	Robin Airlines.
California Skycoach-----	Trans-American Airways.
California Arrow-----	Arrow Airways.
California Pacific Airlines-----	Mercer.
California Coastal Airlines-----	Airline Transport Carriers.

In addition, Western Air Lines of California leased its aircraft from Western Airlines. Even PSA was not wholly independent. It was an offshoot of the Friedkin School of Aeronautics.

Similarly, the six airlines that came into existence in the 1962-1964 period did so as a result of a new influx of used aircraft into the market which had been replaced by the jets. As trunklines moved to jets, a surplus of conventional, propeller-driven aircraft was created.

Fourth, the number of cities of California served by the intrastate carriers was limited. The principal cities were Los Angeles, with its satellite airports of Burbank and Long Beach; San Francisco, with its satellite airports of Oakland and San Jose; and San Diego. These are extremely high-density markets, including the largest air transportation market in the world (San Francisco-Los Angeles). The other cities served were the state capital, Sacramento, and the cities of Lake Tahoe, Fresno, Palm Springs, Bakersfield, Modesto, Stockton, and Van Nuys.

Fifth, the service at most of the few cities involved in the intrastate carrier activity received only sporadic service, and for very limited periods. Only the three major cities received any significant level of service during the entire 20-year period. The Los Angeles area received intrastate service during most of the period at the Burbank airport, but the service at the main airport was erratic (from 1950 to 1965 with some interruptions in 1955 and 1957) and at Long Beach was very limited (1949 and 1953-1954). The San Francisco area received intrastate service during most of the period at the Oakland and San Francisco International Airports, but the service at San Jose was very limited (1962 to 1965). The service at San Diego was continuous from 1949 to 1965. Sacramento, the state capital, received very little service (1946-1947, 1949, 1962). The other cities received even less service. Lake Tahoe received service for 21½ months, or about 9.2 percent of the time. Fresno, California received service for 9½ months in the aggregate by 3 separate carriers or about 3 percent of the time, 7½ months in 1946-1947, 1 month in 1949, and 1 month in 1962. Palm Springs received service for 4½ months or about 2 percent of the time. Bakersfield received service for 1 month or one-half of 1 percent of the time. Modesto received service for 1 month. Stockton received service for 3½ months. Van Nuys received service for 19 days.

Thus, the public in California had little by way of intrastate service during this 20-year period. The public did receive the benefits of lower fares in the high-density San Francisco-Los Angeles-San Diego markets. But, they received very little service in any other markets. And, during this period, they paid a significant price in the disruption caused by a large number of local air carriers going out of business. People were stranded in the midst of trips, as carriers went bankrupt without prior notice to the traveling public.

Sixth, none of the intrastate carriers provided an integrated pattern of service. Most of the service was conducted between two pair of points. No connections or interline reservations were made. These services were point-to-point operations provided by individual carriers, totally divorced from the operations of other carriers. That situation prevails in California today. There is no effort by either of

the present two intrastate carriers to provide an integrated pattern of service between a series of markets. This is wholly unlike the integrated system operations of the federally-certificated air carriers and their concern with connections and reservations on other carriers, which results in an overall integrated national pattern of air service.

In conclusion, very little can be said about the number of air carriers that would come into existence in an open entry situation. Most of the intrastate carriers entered at a time when inexpensive, surplus aircraft had become available. That experience may or may not be repeated. What can be concluded from this experience, however, is that if 200-300 air carriers were to come into existence, as Professor Jordan projects, they would do so on a scattered basis, unrelated to pressing market needs. Rather, their entry would be concentrated during periods when used equipment is available. The other conclusion that can be reached is that most of the carriers would quickly fail and exit from the field of air transportation.

Professor Jordan's conclusion that the situation would stabilize after 10 years is wholly unsupported by the California intrastate experience. Events were in as chaotic a state, in terms of carrier stability, 20 years after the period of entry began as they were at the beginning. In the early sixties, 15 years after the intrastate industry began, six new carriers came into existence. Five folded up in periods ranging from 2 months to 2½ years, and the sixth provided only weekend service to a racetrack for horseracing enthusiasts. And it must be emphasized that California presents an ideal situation for airline service. If California air service remained in a state of chaos for 20 years, the country as a whole could expect a far worse period of instability.

3. *Regulation by the California Public Utilities Commission.*—The California PUC began to regulate entry in September 1965. It did so for two principal reasons. First, there was a public outcry for an end to the uncertainty and chaos resulting from the free entry and exit of the intrastate air carriers. The chaotic situation that had occurred in 1949 and 1950, when six out of eight new carriers failed in approximately one year or less, reoccurred during the period 1962 to 1965. Another six carriers entered into business and five folded. People were left stranded in the midst of trips, and had no assurance of receiving reliable air service. The resulting public outcry forced the California PUC and the State Legislature to consider action to get the situation under control.

The second factor was the plea for route security by the one carrier that had succeeded over the entire period, namely PSA. PSA wanted to upgrade its fleet from Electras to 727s and expand its operations. PSA's management believed it could not obtain the necessary financing without the security of a certificate.

Since the PUC entered the picture, it has given great protection to the regulated carriers. Each has been given monopoly intrastate routes (appendix E). No competitive authority has been authorized, despite carrier efforts to overlay one another. Where dual authority is involved, one or the other carrier is not permitted to carry traffic.

PSA remained as the strongest intrastate carrier and began to expand from the primary markets of San Francisco-Oakland-Los Angeles-San Diego, which were the only markets served by PSA during the period of free entry into some secondary markets. (See appendix D.) Air California entered business in January 16, 1967, serving the Santa Ana-San Francisco market exclusively. It later expanded to a number of other major monopoly routes. (See appendix E.) The only other entrant was Holiday Airlines that specialized in serving Lake Tahoe. It went bankrupt earlier this year.

Rates have increased under the PUC's regulations. But, a slightly broader pattern of assured intrastate service has emerged as well.

4. *Conclusion from the California Situation.*—If we project the California intrastate situation to the national scale, what emerges as reasonable conclusions are the following:

(1) The number of entrants may be substantial. Professor Jordan's figure of 200-300 may be reasonable, although it will depend more on availability of excess, used equipment than on market demand.

(2) Most of the carriers will go out of business over periods of 2 years or less, with the majority folding in 6 months.

(3) At most, a few carriers will survive and they will tend to limit their activities to the densest markets.

Free entry would certainly lead to the rapid destruction of the present air transportation network, with smaller cities receiving little if any service. The

large number of entrants may drive fares down temporarily, but they will enter sporadically, with most exiting rapidly. The public will be left with great uncertainty over the availability of air service by an existing carrier or air service in any given market. This is the most that can be concluded from the 20 years of California intrastate experience.

5. Other Problems of Free Entry.—There are two other aspects of the free entry concept that were not discussed by the advocates of this system. This is the added distortion resulting from protected international operations at one end of the spectrum, and protected intrastate operations at the other end of the spectrum. Both act as a bar to the evolution of any true free entry and exit system and would seriously distort the air transportation system resulting from applying the theory of free entry and exit.

If entry to international markets is to be controlled, yet free entry is to be permitted in domestic markets, two distortions would occur. First, carriers with strong international routes would have a substantial competitive advantage which could and undoubtedly would be used to improve their economic position to the detriment of carriers without such protected routes. In general, international routes have been more profitable than domestic routes. This is shown by appendix F. Thus, a carrier with such a route would have an unfair competitive advantage in relation to carriers without such routes, particularly under circumstances in which all of their markets are subject to free entry. Second, carriers with international routes would tend to direct their domestic operations to those routes that flow into their international operations. In this manner, they would achieve a further advantage over competitors in the domestic markets. They would be feeding traffic moving over the international leg of a journey to and from interior points over domestic operations. The protection of their international operations would be extended in a very real sense to most if not all of their domestic operations. Even aside from the unfair competitive advantage the carrier with international routes could thus achieve over certain domestic routes, the markets these stronger carriers would tend to serve would have little to do with domestic air transportation needs of the public. The markets served would be those best suited to international travel, and the services would be so geared.

At the other end of the spectrum, the air transportation system would be distorted by protective action by state aeronautic boards and public utility commissions. As experience has demonstrated in California and Texas, state officials will regulate to protect intrastate carriers. If they continue to do so under a national system of open entry and exit, new carriers will be attracted to serve protected intrastate markets rather than unprotected interstate markets. This would ultimately lead to the formation of regulatory commissions in each state and the complications inherent in 40 or more regulatory bodies each exercising independent control.

6. Continental's Position.—As Continental has made clear in its testimony before the subcommittee, we do not oppose new entrants to the federally-regulated air transportation industry. In fact, we believe that new entrants maintain vitality in the industry. They bring innovation, which means public benefits. Moreover, the mere threat of new entrants being permitted into the industry spurs the incumbents to better serve the public. It is for this reason that we have urged that the Board have a more open mind than it has shown in the past to consider the applications of new entrants.

At the same time, we believe that the incumbent carriers must continue to have opportunity to expand both into domestic and into international markets. Such expansion means a higher level of competition with its resulting benefits in improved service, and lower fares. In addition, so long as the air carriers are given new opportunities, and performance is a significant factor in awarding new route opportunities, the carriers will be spurred to better serve both their existing and their new markets.

We believe that the combination of considering new entrants and expanding the authority of the incumbents will provide the benefits of competition being sought. The public will be assured as complete and effective a system of air transportation as is economically feasible by the continuation of the present system of individual carriers being assigned responsibility to provide service over given air routes. The chaos and uncertainty that marked the California intrastate situation up to 1965 and that marks the air taxi situation today will be avoided.

During the Period of Free Entry and Exit

BY CARRIER

[illegible]

CALIFORNIA INTRASTATE AIR SERVICE

During the Period of Free Entry and Exit

BY CITY SERVED

INTRASTATE AIR CARRIERS:	SAN FRANCISCO AREA		
	San Francisco	Oakland	San Jose
Pacific Air Lines	5/46, 6/47		
California Central Airlines	1/49 — 2/55	11/49 — 2/55	
Robin Airways	4/49, 5/49	3/49, 9/49	
California Skycoach		4/49, 5/49	
Pacific Southwest Airlines	7/51 —	5/49 — 3/54	10/60, 3/61 — 1/65
California Arrow		5/49, 12/49	
Channel Airways	5/49, 8/49		
Western Air Lines of Calif.	8/49, 5/50	8/49, 5/50	
California Pacific Airlines		1/50, 2/50	
California Coastal Airlines (dba California Central Airlines)	4/55 — 2/57	3/55 — 8/57	5/62, 3/64 —
Paradise Airlines			6/62, 7/62 — 8/62, 10/64
Futura Airlines			
Trans California Airlines			
Blatz Airlines			9/64, 2/65 —
Mercer Enterprises			
California Time Airlines			11/64, 1/65 —

CALIFORNIA INTRASTATE AIR SERVICE

During the Period of Free Entry and Exit

BY CITY SERVED

LOS ANGELES AREA

	Burbank	Los Angeles	Long Beach
INTRASTATE AIR CARRIERS:			
Pacific Air Lines	3/46 6/47 H		
California Central Airlines	1/49 3/49 9/49 H 4/49 5/49 H 5/49 5/49 12/49 H	11/50 2/55 H	10/53 6/54 H
Robin Airways			
California Skycoach			
Pacific Southwest Airlines		8/58 H	5/49 8/49 H
California Arrow			
Channel Airways			
Western Air Lines of Calif.	8/49 5/50 H		
California Pacific Airlines	1/50 2/50 H	1/56 2/57 H	
California Coastal Airlines (also California Central Airlines)			
Paradise Airlines	3/55 8/57 H		6/62 9/62 H 12/62 10/64 H 4/64 H
Futura Airlines			
Trans California Airlines	8/62 10/64 H		
Blatz Airlines	7/63 12/63 H		
Mercer Enterprises	4/64 H		
California Time Airlines	5/64 3/65 H		

CALIFORNIA INTRASTATE AIR SERVICE

During the Period of Free Entry and Exit

BY CITY SERVED

INTRASTATE AIR CARRIERS:	SAN DIEGO AREA		SACRAMENTO AREA	
	San Diego	Brown Field	Sacramento	
Pacific Air Lines	5/49 2/55		3/46 6/47 6/49 9/49 5/49 12/49	6/62 7/62
California Central Airlines				
Robin Airways				
California Skycoach				
Pacific Southwest Airlines	5/49			
California Arrow				
Channel Airways				
Western Air Lines of Calif.				
California Pacific Airlines				
California Coastal Airlines (also California Central Airlines)	5/55 10/56			
Paradise Airlines		1/63 6/64		
Futura Airlines				
Trans California Airlines				
Blatz Airlines				
Mercer Enterprises				
California Time Airlines		4/64		

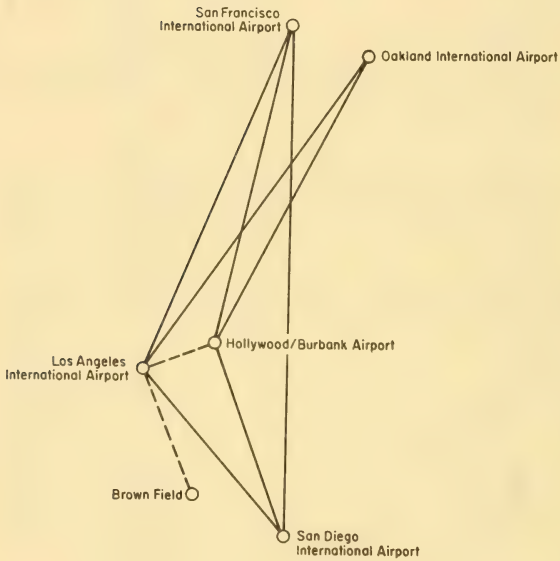
CALIFORNIA INTRASTATE AIR SERVICE

During the Period of Free Entry and Exit

BY CITY SERVED

INTRASTATE AIR CARRIERS:	OTHER CALIFORNIA CITIES				
	Fresno	Modesto	Stockton	Lake Tahoe	Bakersfield
Pacific Air Lines	10/46 6/47 H	10/46 11/46 H	10/46 1/47 H		
California Central Airlines					
Robin Airways					
California Skycoach					
Pacific Southwest Airlines					
California Arrow	8/49 9/49 H				
Channel Airways					
Western Air Lines of Calif.					
California Pacific Airlines					
California Coastal Airlines (also California Central Airlines)					
Paradise Airlines				5/62 3/64 H 6/62 9/62 H 7/63 12 74 H	6/62 7/62 H
Futura Airlines	6/62 7/62 H				8/62 9/62 H
Trans California Airlines					
Blatz Airlines					
Mercer Enterprises					
California Time Airlines					
					9/64 2 65 H

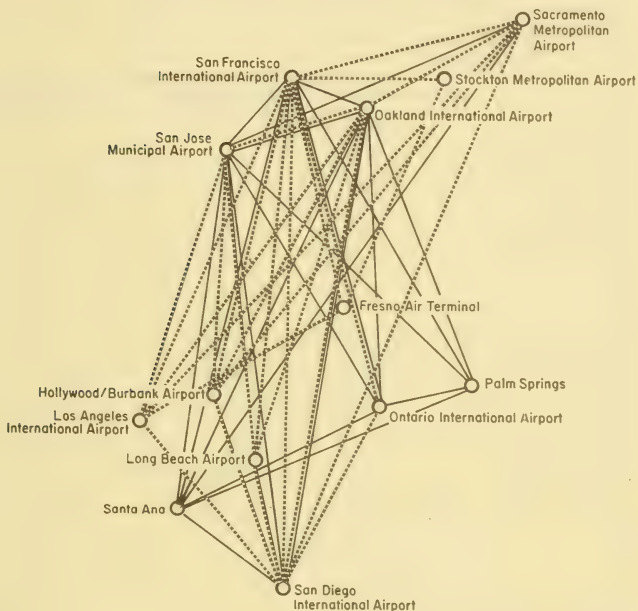
PACIFIC SOUTHWEST AIRLINES
ROUTE STRUCTURE - June 1965



————— PSA - June 1965

- - - - - Mercer - June 1965 (Sat, Sun only)

AIR CALIFORNIA and PACIFIC SOUTHWEST AIRLINES ROUTE STRUCTURE - PRESENT ROUTES ONLY



PRESENT ROUTES:

———— Air Cal

..... PSA

NOTE: The following authorities are "closed door" authorities in which origin-destination passengers may not be transported:

AIR CALIFORNIA

1. Oakland - San Francisco
2. Oakland - San Jose
3. San Francisco - San Jose
4. San Francisco - Ontario

PSA

1. Oakland - San Jose

RELATIONSHIP OF INTERNATIONAL TO SYSTEM
REVENUES AND PROFIT-SELECTED TRUNKS

1973

	Dollars in Thousands		
	<u>System</u>	<u>International</u>	<u>% International</u>
BRANIFF: Revenues	428.1	104.8	24.5%
Operating Profit	41.4	17.6	42.5
New Profit	23.4	12.2	52.1
NATIONAL: Revenues	413.8	22.6	5.5
Operating Profit	50.6	5.7	11.3
Net Profit	20.6	2.3	11.2
NORTHWEST: Revenues	584.6	157.3	26.9
Operating Profit	49.5	17.7	35.8
Net Profit	51.1	20.8	40.4
WESTERN: Revenues	414.7	32.1	7.7
Operating Profit	40.1	7.0	17.5
Net Profit	20.4	3.5	17.2

Source: CAB Interim Financial Statement

SUPPLEMENTARY TESTIMONY OF WILLIAM A. JORDAN

APRIL 21, 1975

AIRLINE DEREGULATION: CHAOS IN THE EYES OF THE BEHOLDER

Introduction

Mr. James L. Mitchell, vice president of regulatory proceedings of Continental Air Lines, has presented a supplementary statement¹ discussing some of the points covered in my testimony to this subcommittee on February 14, 1975.² The thrust of his statement is that the relatively unregulated experience within California prior to 1965 indicates that chaos, uncertainty and instability would exist in scheduled air transportation without Civil Aeronautics Board (CAB) regulation, all to the detriment of the public. The conditions to be faced without CAB regulation may well appear chaotic and detrimental to the established members of the regulated airline industry, but it is unlikely that this viewpoint would be shared by consumers of air transportation.

Many important services in North America are amply provided by the open-entry, private-property system without the assistance of government regulation. For example, an airline passenger arriving at most airports can rely upon finding unregulated car-rental services available. In fact he can often choose between making an advance reservation with a national car-rental firm or turning to the yellow pages of the phonebook upon arrival to obtain the lower-priced services of various "cutthroat" competitors. He can then drive his rented full-size Chevrolet with air-conditioner (or his Volkswagon) to the local member of a large unregulated hotel chain where he has confirmed reservations, or he can search out some small motel that competes "unfairly" with the hotel chain by charging lower prices. Finally, he can enjoy an elegant dinner in an unregulated (except for a liquor license) restaurant, or he can survive on a more modest meal at the cafe he noticed while driving in from the airport. All these services are important to the traveler; he relies upon their being available and seldom is he disappointed even though they are not regulated. The suppliers of these services may find the market conditions to be "chaotic," but that is not the perception of the consumer. The cafe may be under new management and the hotel may have just been merged into another parent company, but the traveler's eating and sleeping will be little affected by these changes in supply factors.

While all of the above services, and others, are supplied without benefit of direct economic regulation, the interstate traveler's flight to his destination is on an airline that is heavily regulated. Is there something about air transportation that makes economic regulation necessary to prevent chaos and to ensure its reliable provision? On the one hand, Mr. Mitchell and other experienced members of the CAB-regulated airline industry believe this to be the case. On the other hand, some observers of airline operations have been led to the opposite conclusion by the history of the relatively unregulated California intrastate carriers, supported by still other evidence from the Texas intrastate experience, from U.S. military airlift procurement, from the operations of unregulated commuter airlines, and from regulated airline performance in Canada. Is it possible that the predicted chaos largely exists in the eyes of the members of the regulated airline industry? The following supplementary testimony will analyze Mr. Mitchell's statement and, in the process, will indicate how perceptions of economic chaos are greatly influenced by one's point of view.

PASSENGER BENEFITS AND NUMBER OF AIRLINES IN EXISTENCE

Mr. Mitchell states that my principal conclusions from the California intrastate experience are that: "(1) the intrastate service pattern produced far healthier results for the traveling public than did the regulated U.S. domestic industry, (2) absent regulation, there would be 200-300 air carriers in the United States, and fares would be lower, and (3) the period of 'adjustment' after the institution of free entry and exit would be in the order of 10 years."³ It happens that this is only a partial summary of my conclusions and two points are somewhat inaccurate. First, my testimony contained no mention of "healthier results

¹ James L. Mitchell, "Supplementary Statement," Subcommittee on Administrative Practice and Procedure, Committee on the Judiciary, U.S. Senate (n.d.; processed).

² William A. Jordan, "Results of Civil Aeronautics Board Regulation," Testimony Before the Subcommittee on Administrative Practice and Procedure, Committee on the Judiciary, U.S. Senate (Feb. 14, 1975; processed).

³ James L. Mitchell, *supra*, note 1, at 4.

for the traveling public," and, second, the 200-300 air carrier estimate is inflated by about 100 airlines and there is a conceptual problem with Mr. Mitchell's analysis of this estimate.

My conclusions about the effects of CAB regulation on passengers were as follows:

Passengers who value high-quality airline service relatively more than other goods and passengers who do not pay for their air travel, have also benefited from the high-quality service flowing from CAB regulation. Passengers who, in contrast, prefer low-price and somewhat lower-quality service have been harmed, either by having to pay higher prices for airline services or by using less preferred means of travel, or by not traveling at all. Also harmed through having to pay higher prices or higher taxes are the many consumers of goods and services produced by firms or government agencies utilizing air transportation in their production and/or distribution activities.⁴

Overall, if "health" refers to economic benefits, I conclude that CAB regulation has increased the health of some passengers while without CAB regulation the health of a larger number (but not all) passengers and many consumers would have been significantly improved over what they actually experienced.

My statement regarding the number of airlines in existence at various times in the absence of CAB regulation was:

Based on the system sizes and traffic volumes of the California *intrastate carriers*, it appears that without CAB regulation from 100 to over 200 airlines operating large aircraft would have existed at any one time in the 48 contiguous states from 1949 through 1965. (Emphasis added.)⁵

The important point is not whether the range of unregulated airlines in existence extends from 100 to over 200 or from 200 to 300. What is important is whether or not there would have been several times more scheduled airlines in existence at any one time without CAB regulation than the 35 to 24 trunk and local service carriers that CAB actually allowed to operate between 1949 and 1965, and the implications this has regarding the dispersion of airline services over the country in the absence of regulation. Due to some confusion over concepts, Mr. Mitchell failed to come to grips with the evidence pertaining to this matter.

Mr. Mitchell's analysis of the California experience on pp. 6-11 of his statement concluded that "... very little can be said about the number of air carriers that would come into existence in an open entry situation," and "(w)hat can be concluded from this experience, however, is that if 200-300 air carriers were to come into existence ... they would do so on a scattered basis. . . ." ⁶ It happens that his analysis was based on the information given in my book in the section entitled "Intrastate Carrier Entry and Exit." ⁷ This section demonstrated that CAB regulation has significantly limited both entry into and exit from the industry. But the following section, entitled "Number of Airlines in Existence," pointed out that the flow of airlines into and out of the industry cannot be used to estimate the stock of airlines in existence at various points in time,⁸ just as the annual earnings statement of a firm cannot be used to derive its end-of-year balance sheet. My estimate of 100 to over 200 airlines in existence at any point in time from 1949 through 1965 was made in that latter section and was based on system sizes and traffic volumes. Since Mr. Mitchell made no reference to that analysis in his statement, there is nothing to cause me to change my evaluation of the evidence. Thus, the estimated number of airlines in existence, together with other evidence to be outlined below, still imply that airline services would not have been provided on a "scattered basis" in the absence of CAB regulation.

AIRLINE FAILURE AND COVERAGE

When describing the high failure rate and lack of coverage of the California intrastate carriers during the 1946-65 period of open entry, Mr. Mitchell chooses to analyze the California experience only in terms of the intrastate carriers. This is exemplified by the major title of appendixes A, B and C of his statement, to wit: *California Intrastate Air Service*. To be accurate, this title should have

⁴ William A. Jordan, *supra*, note 2, at 45-46. Also, William A. Jordan, *Airline Regulation in America: Effects and Imperfections*, 227 (1970).

⁵ *Id.* at 6. Also, William A. Jordan, *supra*, note 4, at 24-32.

⁶ James L. Mitchell, *supra*, note 1, at 10-11.

⁷ William A. Jordan, *supra*, note 4, at 17-24.

⁸ *Id.* at 24-32.

read: *California Air Service by Intrastate Carriers*. The change in wording is small, but the change in meaning is important.

Considering only intrastate carrier service ignores the fact that other airlines also provided service within the state. In 1949, when the first major wave of intrastate entry occurred, the managers of every potential intrastate carrier had to face the reality that California was already blanketed by airline service authorized and subsidized by the Federal Government. As of March 31, 1949, American, TWA, United and Western were authorized to serve 22 airports, while Southwest Airways (the original name of Pacific Air Lines, now a part of Hughes Airwest) was authorized to provide local service at 24 California airports.⁹ Combined, these five CAB-regulated airlines served 38 unduplicated airports throughout the populated portions of the state. It was against the established services of these subsidized carriers (who were also allowed to carry U.S. mail) that the intrastate carriers sought to introduce service within the confines of California. Then, even more than now, traffic between many city-pairs was so limited that it would support only one carrier. Since most of the smaller city pairs in California were already served by a subsidized carrier and since adjacent interstate points such as Tucson, Phoenix, Las Vegas and Reno could not be served, it is evident that the California intrastate carriers faced serious restrictions on the demand for their services and on opportunities to utilize their aircraft efficiently.

Given all the above, the surprising thing is not that such a high proportion of intrastate carriers failed, but that a few did manage to survive. Certainly they emphasized the high-density city-pairs. Surely one is not going to risk his wealth in serving such monopoly points at Bakersfield, Stockton and Eureka when a subsidized airline was already providing service between those cities. Certainly they began service through the old Lockheed Air Terminal at Burbank rather than at the new Los Angeles International Airport. It was cheaper to operate through Burbank and costs were crucially important to those early carriers offering service at coach fares less than half the fares of the CAB-regulated airlines. Certainly intrastate carriers entered during periods when aircraft were relatively low priced. Mr. Mitchell refers to "free" entry. No economic activity is free. Open entry (referring to the lack of legal/regulatory barriers) is the correct terminology and, when legally possible, more entry occurs when entry costs are low than when they are high. Overall, the intrastate carriers were playing the economic game constrained by the CAB's rules, and those rules were biased against them.

Appendixes B and C of Mr. Mitchell's statement contain the dates of service at most, but not all, of the California airports served by the sixteen intrastate carriers. These appendixes emphasize the sporadic coverage of these carriers from 1946 to 1965 as they sought to establish themselves despite the rivalry of the entrenched CAB-regulated airlines. Also shown, but not emphasized by these appendixes, is the fact that low-fare services were offered continuously by one or more intrastate carriers in the San Francisco and Los Angeles areas and in San Diego throughout the period from 1949 to 1965 and beyond. True, a passenger might have had to utilize Burbank rather than Los Angeles International at various times, but he did have intrastate-carrier service available at each major population center. These appendixes also fail to show that the intrastate carriers offered the first or only single plane service to Inyokern, Edwards AFB, Brown Field, Lake Tahoe and, recently, Mammoth.¹⁰ The CAB-regulated airlines did overlook some small points within California and the intrastate carriers moved in if there was an expectation of profitable unsubsidized operations.

With regards to the CAB-regulated airlines, Mr. Mitchell's bar diagrams do not depict such things as United's suspension of all service at Burbank in April 1961 and at Long Beach in October 1962, and Western's suspensions at these points in September 1962 and October 1973, respectively.¹¹ Also, they do not mention the fact that the CAB-regulated trunk carriers concentrated their services at the Los Angeles and San Francisco International airports and essentially ignored the

⁹ CAB, United States Air Transportation System, Routes Permanently Certificated, Mar. 31, 1949, and Limited-Period and Pickup Routes Certificated, Mar. 31, 1949.

¹⁰ William A. Jordan, *supra*, note 4, at 115-33 and 258-63. Also, California Public Utilities Commission (PUC) decisions 75375 (Feb. 25, 1969), and 79166 (Sept. 21, 1971).

¹¹ William A. Jordan, *supra*, note 4 at 277. Also, CAB orders E-18819 (Sept. 24, 1962), and 73-9-72 (Sept. 18, 1973).

airport at Ontario, Santa Ana, Oakland and San Jose until Pacific Southwest Airlines (PSA) and Air California demonstrated the traffic generating capabilities of those satellite airports during the late sixties. As importantly, these appendices fail to indicate qualitative aspects of service. For example, they do not show that Pacific's regulated service at San Jose generated a maximum of only 73,000 annual online origin and destination passengers to and from Los Angeles throughout the many years Pacific provided the only single-plane service in this city-pair, while during its first full year of operation in this city pair (1967), PSA carried 557,000 O&D passengers.¹² Finally, these diagrams do not show such things as the California Public Utilities Commission (PUC) decision that ordered Western to remove the discrimination in the fares it offered at Oakland and Long Beach relative to San Francisco and Los Angeles.¹³

Mr. Mitchell mentioned that he interested Continental in serving the Los Angeles and San Francisco satellite airports after he joined that company in September 1968. He states that "Continental began operations at Ontario in connection with its Chicago-Kansas City-Denver-Los Angeles route, and later was authorized to provide service between the Pacific Northwest terminals of Seattle and Portland and all the satellite airports. . . ." ¹⁴ Of course, authorizations are one thing, actual service another. The Official Airline Guide shows that, during this past March, Continental provided no service whatsoever to half the satellite airports (Long Beach, Santa Ana and Oakland), and that is operated only a single daily round trip between Ontario and Chicago/Denver (but not to Kansas City), about 1½ daily round trips between Ontario/Burbank and San Jose, and 3 to 3½ daily round trips between Ontario/Burbank/San Jose and Seattle/Portland.¹⁵ In total, it provided six daily departures at Burbank, just over seven at San Jose and eight at Ontario. This is in sharp contrast to the multiple daily frequencies provided by Air California and/or PSA at all six satellite airports.¹⁶

Actually, it is misleading to emphasize the negative aspects of airline service within California. Overall, the rivalry between individual carriers, regardless of their regulatory classification, has resulted in an outstanding coverage and quality of service being provided by all airlines as a group. As far as the consumer is concerned it is this overall level of service that counts, and the airline consumer has been amply blessed in California. In addition, wherever intrastate carriers have operated the consumer has also enjoyed fares appreciably lower than those which would otherwise have been authorized by the CAB.¹⁷

THE ROLE OF DEMAND

Mr. Mitchell asserts that without regulation airline entry and exit "would have little to do with public need for service," would be "unrelated to pressing market needs," and would "depend more on availability of excess, used equipment than on market demand."¹⁸ The terms "public need," "market needs," and "market demand" are not defined, but it appears that they are synonymous and that they refer to the economic concept of demand.

An assertion that unregulated airlines would place little importance on the demand for their services when considering entry or exit would be surprising were it not consistent with the CAB's great emphasis on supply considerations when setting its "cost-based" fares.¹⁹ This common practice of regulators is inconsistent with economic reality and, certainly since the publication of Alfred Marshall's *Principles of Economics* in 1890, economic theory has recognized that the viability of an enterprise in an open market depends both upon the costs of providing a good/service and on there being adequate demand for that good/service. It is the "scissors of supply and demand" that define economic viability and equilibrium prices. By and large, the California experience indicates that demand would not be ignored by unregulated air carriers when they sought to enter new markets, nor would they ignore the costs of operations.

¹² William A. Jordan, *supra*, note 4, at 129-30. Also, PUC. Transportation Division, Traffic Data, exhibit submitted in application 52970, sheet 5 (Feb. 11, 1972).

¹³ PUC decision 67077 (Apr. 7, 1964).

¹⁴ James L. Mitchell, *supra*, note 1, at 3.

¹⁵ 1 Official Airline Guide (North American edition, Mar. 1, 1975).

¹⁶ *Id.*

¹⁷ William A. Jordan, *supra*, note 4, at 113-14 and 131-33.

¹⁸ James L. Mitchell, *supra*, note 1, at 4, 11 and 13, respectively.

¹⁹ William A. Jordan, *supra*, note 2, at 28-29.

STABILITY

Mr. Mitchell feels that the recent experience of the air-taxi/commuter airlines is evidence of "a considerable lack of economic stability,"²⁰ and he quotes a U.S. Court of Appeals decision to support his belief. This subcommittee has been given a statement on this point with a different conclusion.

The proponents of entry and exit regulation in that case (the New England Service Investigation) argued, and the Board agreed, that there is a public interest in "continuity of service" which requires some entry and exit regulation. We question this result, in view of the Administrative Law Judge's uncontroverted finding that although commuter carriers had entered and exited several New England markets, there had been no significant lapses of service to the public because of this turnover. (Footnotes omitted.)²¹

The difference is one of viewpoint. From the airline point of view there certainly is instability with open entry and exit. Many airlines enter and a large number of these exit. From the passenger viewpoint, however, service is quite stable, even during periods when a relatively young industry is testing and developing markets.

Mr. Mitchell notes that "[s]ome air taxi operators who have achieved stability did so either by concentrating in high density vacation markets or by tying themselves to a certificated carrier through a commuter 'feeder' agreement. . . ."²² Unfortunately, he fails to specify the numbers of air-taxi operators in each of these two categories, nor does he give the number of operators who have found stability in other circumstances.

A CAB study of the commuter air carriers for the year ended June 30, 1973, reported 201 such carriers filing required reports for one or more quarters, with 126 doing so for the entire year.²³ Of the 201 carriers, 151 provided passenger service and accounted for 549 million revenue passenger-miles (RPM), which was 0.45 percent of the total 122,009 million RPM carried by the domestic trunk, local service and commuter carriers combined.²⁴ This left the trunk and local service carriers with 99.55 percent of total RPM. If less than one-half of 1 percent of total RPM can support 100 or more carriers operating small aircraft having 19 seats or less, there is nothing surprising about 221 times that traffic supporting well over 100 airlines operating large aircraft with 50 to 400 seats, especially since California (and the Texas) experience provides evidence that full economies of scale can be achieved with around five aircraft of a type suited to the carrier's routes and traffic densities.²⁵ Furthermore, with this much larger demand service would be even more stable for the passenger than what they have already obtained from the constrained commuter carriers.

FINANCIAL AND SAFETY PROBLEMS IN THE THIRTIES

Referring to the pre-1938 era, Mr. Mitchell notes that the carriers of that period were "in financial difficulty, and safety problems existed."²⁶ He does not mention that many industries had financial difficulties during the Great Depression and that the domestic airlines were a growth industry even during that period. Between 1930 and 1938 their RPM grew by 464 percent and passenger revenues increased by 242 percent (in a period of deflation), while mail revenue ton-miles expanded by 203 percent from 1934 to 1938.²⁷

Safety then was certainly a greater problem than it is today, but airline, aircraft and air traffic control technologies in the thirties were rudimentary compared with the present time. As stated in my testimony, the evidence is unclear regarding whether or not economic regulation by the CAB (as distinct from direct operational regulation by the Federal Aviation Administration) improves airline safety.²⁸ Even comparing passenger fatalities per 100 million RPM may be mis-

²⁰ James L. Mitchell, *supra*, note 1, at 5.

²¹ Thomas E. Kauper, "Testimony Before the Senate Subcommittee on Administrative Practice and Procedure Concerning Airline Regulation by the Civil Aeronautics Board," 21-22 (Feb. 6, 1975; processed).

²² James L. Mitchell, *supra*, note 1, at 6.

²³ CAB, "Commuter Air Carrier Traffic Statistics, Year Ended June 30, 1973," 3 (June 1974; processed).

²⁴ *Id.* at 1 and 14. Also, CAB, Air Carrier Traffic Statistics, 2 and 4 (June 1973).

²⁵ William A. Jordan, *supra*, note 4, at 191-94.

²⁶ James L. Mitchell, *supra*, note 1, at 5.

²⁷ CAB Handbook of Airline Statistics, 23, 48 and 79 (1973 ed.).

²⁸ William A. Jordan, *supra*, note 2, at 43-45.

leading. For example, to the extent higher fares resulting from CAB regulation have caused travelers to substitute more dangerous automobile travel for safer air travel the overall safety of the total traveling public has been decreased by CAB regulation, assuming airline safety standards would be maintained with larger traffic volumes. The question of safety is very complex and many factors must be considered explicitly or held constant, especially when making comparisons between different historical periods.

INTEGRATED SERVICES

Mr. Mitchell's statement regarding the lack of "an integrated pattern of service" by the intrastate carriers is surprising.²⁹ The route maps given in his appendix E show that the services of Air California and PSA are close substitutes for each other rather than being complementary, thereby decreasing passenger demand for integration.³⁰ Also, he fails to point out that a California passenger can easily obtain integrated services by going to a travel agent to purchase tickets and having reservations made on two different intrastate carriers should his travel plans warrant this. Finally, Mr. Mitchell has overlooked Air California and PSA's unsuccessful efforts to obtain the necessary authorization from the CAB to establish interline arrangements with the CAB-regulated airlines.³¹ If increased integration is desirable, it is within the CAB's power to allow it to happen.

Much has been made of the desirability of the CAB-regulated airlines being able to issue tickets and make reservations for each other. While this is convenient for some, it has resulted in other passengers having to experience long and impatient delays at ticket counters while agents make reservations and issue multicarrier tickets for other passengers. My own travel experience has shown that it is very easy to fly to Los Angeles on American, United or Air Canada and then make reservations and purchase tickets for travel within California on PSA or Air California, especially with the widespread acceptance of credit cards. Each carrier sells a simple one- or two-coupon ticket. The only difference is that in Toronto the ticket may be written out by hand in considerable detail, while in Los Angeles it is issued more quickly as a cash-register receipt. I happen to prefer the speed of the latter method.

RELEVANCE OF THE CALIFORNIA EXPERIENCE

Mr. Mitchell, in common with other industry spokesmen, warns against generalizing too much from the California experience. "The area is limited geographically. The weather conditions, the mileages involved, and the high population density of the principal cities served . . . present ideal operating circumstances."³² Aside from occasional dense fogs at most airports and the heavy snow falls at Lake Tahoe and Mammoth, weather conditions in California are good, but so are weather conditions all across the southern U.S. The population densities of the principal cities are not unique; they are duplicated in many other cities in the nation. Finally, the mileages involved are far from ideal. The fact is that California is a relatively constrained geographic and economic area and this has served to harm the intrastate carriers that sought to survive under open entry.

During 20 years of experience in CAB regulatory activities and related research, this is the first time I have ever heard route segments of 109, 340, or even 449 miles called "ideal." To the contrary, routes that allow nonstop flights of 1,000 miles or more are the ideal. Listening to airline spokesmen would lead one to think the CAB had done the California intrastate carriers a tremendous favor by not allowing them to risk introducing low-fare coach service to such cities as Phoenix, Seattle, Denver, Dallas, Minneapolis-St. Paul, Chicago, Detroit, Atlanta, Miami, Washington, New York, Boston and numerous large, medium and small cities in between. As the old saying goes, "with a friend like this, who needs enemies?"

There are indeed limitations to generalizing from the California (and Texas) experience, but these limitations are opposite to those indicated by airline

²⁹ James L. Mitchell, *supra*, note 1, at 10.

³⁰ William A. Jordan, "Air Transportation Markets: Definitional Confusion," *Journal of Air Law and Commerce* (forthcoming: pp. 18-25 of the manuscript).

³¹ CAB orders E-19655 (June 10, 1963) and 71-8-57 (Aug. 12, 1971). Also, PSA, "Responses to Subcommittee on Administrative Practice and Procedure," 16-17 (Feb. 3, 1975).

³² James L. Mitchell, *supra*, note 1, at 5.

spokesmen. With open entry nationwide, airlines could operate more efficiently and enjoy lower operating costs than experienced in constrained intrastate areas, demand for their services would be far greater, and there would probably be proportionally fewer failures than what occurred within California.

Critics of the California intrastate experience also emphasize that the successful carriers operated between Los Angeles and San Francisco which has the largest passenger flow in the world. Mention is never made of the fact that this was not the case in 1948 before the intrastate carriers introduced low-fare coach service to that city-pair. As pointed out in my testimony, in 1948 Boston-New York/Newark accounted for 550,000 true O&D passengers while only 297,000 such passengers flew between Los Angeles/Burbank/Long Beach and San Francisco/Oakland.³³ An important reason for the large traffic densities in the present California city pairs is the existence of low fares for long periods of time. Had the same fares-per-mile been permitted throughout the U.S. during the past 25 years, other city-pairs would be challenging Los Angeles-San Francisco for the distinction of being the largest in the world.

BANKRUPTCY AND THE PASSENGER

At two points in his statement Mr. Mitchell points out that passengers "paid a significant price in the disruption caused by a large number of local air carriers going out of business," and that "[p]eople were left stranded in the midst of trips, and had no assurance of receiving reliable air service."³⁴ Surely, given the continuing services of PSA, United, TWA, Western, Pacific and other airlines, it is incorrect to say that passengers had no assurance of receiving reliable air service. Service terminations and carrier bankruptcies certainly inconvenienced passengers who had to make alternative air or surface travel arrangements, but this inconvenience was less than that caused by a foggy night when all airline services were suspended. In bankruptcy, the most extreme case of service termination, the main harm suffered by passengers was that, in common with other creditors, they suffered financial losses. It is worthwhile to investigate the likely extent of such losses.

The largest and most important airline to go bankrupt was California Central Airlines (CCA) on February 14, 1955. California Central was the true pioneer of low-fare coach service within California. It was the first to inaugurate such service in 1949 and over the next six years it consistently carried more passengers than any other intrastate carrier (a high of 169,000 in 1953).³⁵ Let us consider the financial loss of a CCA passenger who purchased a round-trip ticket between Burbank and San Francisco just prior to February 14, 1955. At that time CCA's one-way fare in this city-pair for Martin 202 service was \$13.50 (it was \$11.70 for DC-3 service), so a round-trip ticket cost \$29.70, including the 10-percent federal transportation tax then in effect.³⁶ Therefore, if CCA went bankrupt before the outbound portion of the ticket was used the passenger lost the full \$29.70 (assuming no payments were made to general creditors when CCA's assets were sold by the court). If, however, the passenger had flown to San Francisco just before the bankruptcy he either lost \$14.85, the extra price he had to pay United or Western to fly him back to Burbank, or \$10.99, the price charged by PSA for this service.³⁷ In addition, he may have had to incur such added costs as a phone call to his wife, one or two meals, an overnight stay in San Francisco, and a higher parking fee. Finally, he might even have had to buy a first-class ticket on United or Western for \$24.26 in order to get back in time for the lodge meeting that night.³⁸ Overall, our representative CCA passenger would have perceived his loss to have been between \$11 and, perhaps, \$35 because of CCA's bankruptcy. Certainly he would have felt aggrieved, especially since a dollar was worth more in 1955 than it is today. But, then, he would have been similarly aggrieved had he put a \$35 down payment on a chair ordered from a furniture store that went bankrupt before delivery of the chair. In either case he might have written a complaint to his state legislator, but probably not.

³³ William A. Jordan, *supra*, note 2, at 15n.

³⁴ James L. Mitchell, *supra*, note 1 at 10 and 12.

³⁵ William A. Jordan, *supra*, note 4, at 20 and 264.

³⁶ *Id.* at 135 and 284-87. In early 1955, United and Western, as well as CCA, operated the majority of their nonstop coach service between San Francisco and the Los Angeles area through Burbank. PSA operated only through Burbank. 11 Official Airline Guide (Feb. 1955).

³⁷ *Id.* at 135, 279-80 and 284-87.

³⁸ *Id.* at 135 and 276-78.

While the above may have been the perceived loss of the CCA passenger, it is not the full story. Had CAB regulation been able to totally prevent intrastate-carrier service within California, one-way coach fares would have been higher than the \$13.50 (or \$11.70 or \$9.99) that existed in this city-pair in early 1955. In October 1953 the CAB announced a new coach fare policy in conjunction with the short-haul coach fare case, so it is likely that by early 1955 some limited day-coach service would have been inaugurated between Burbank and San Francisco on long-haul flights at a one-way fare of \$16.79 plus tax.³⁹ Assuming coach service as a part of long-haul flights would have been convenient for our Burbank-San Francisco passenger, this means that he would have paid \$36.94 for his round-trip ticket on a CAB-regulated airline, \$7.24 more than the \$29.70 he paid for his CCA ticket. Thus, this \$7.24 saving due to the existence of intrastate carriers should be deducted from the \$29.70 financial loss to obtain the passenger's true net loss of \$22.46 had CCA's bankruptcy occurred before he began his trip.⁴⁰ Similarly, \$7.24 should also be deducted from the \$11 to \$35 estimated loss in the situation where the passenger was in San Francisco at the time of service termination. This reduces the overall range of possible loss down to between \$3.76 and \$27.76.

The above is the full story for the first-time intrastate air traveler, but not for the person who flew on intrastate carriers between Burbank and San Francisco at other times from 1949 to early 1955. In 1949, for example, because of CCA's innovative efforts such a passenger was able to make his round trip for \$26.43 (including the 15-percent transportation tax) compared with United or Western's CAB-regulated charge of \$48.42—a saving of \$21.99 for this single trip would have covered most or all of his subsequent loss in 1955.⁴¹ Similar calculations should be made for every other trip taken at lower fares because of intrastate-carrier service. Overall, it is clear that the maximum loss suffered by a Burbank-San Francisco passenger due to CCA's bankruptcy was less than \$30, and that almost any passenger who made one or more round-trip flights on an intrastate carrier between 1949 and early 1955 broke even or enjoyed a financial gain despite his loss when CCA went bankrupt.

Mr. Mitchell reports that Holiday Airlines, the intrastate carrier connecting Lake Tahoe with the major California cities, went bankrupt earlier this year. He did not elaborate on what effect this has had on Holiday's service, but the Official Airline Guide reports (perhaps incorrectly) that Holiday is still operating.⁴² Maybe Holiday's current passengers will suffer losses as a result of its bankruptcy. It should not be forgotten, however, that the first scheduled service to Lake Tahoe was inaugurated by an intrastate carrier on May 14, 1962, and that the first CAB-regulated airline (Pacific/Hughes Airwest) did not begin such service until October 27, 1963 and subsequently terminated service in May 1974.⁴³ Thus, the harm done to passengers through Holiday's bankruptcy should be balanced by the benefits received by the same and other passengers through the earlier service inauguration and the continuation of service after Hughes Airwest's withdrawal.

MONOPOLY IN CALIFORNIA?

Was there an airline monopoly in California? Mr. Mitchell states that by 1965 the period of open entry in California "produced a single carrier monopolizing all of the (major) California markets."⁴⁴ He fails to mention that at that time, in addition to PSA, service was provided in major California city-pairs by American, Delta, National, TWA, United, Western and the three predecessors of Hughes Airwest (Bonanza, Pacific and West Coast). This was hardly a monopoly situation.

While Mr. Mitchell correctly points out that entry was no longer fully open after September 1965, he makes little mention of the information given in my testimony that it was not until 1969 that the PUC actually closed entry to new intrastate carriers operating large aircraft. During those four intervening years

³⁹ *Id.* at 104-6 and 276-78.

⁴⁰ In other words, one has to compare the passenger's outlay of \$29.70 for the unused CCA ticket plus \$29.70 for a ticket on United or Western, with the \$36.94 outlay that he would have had to pay in the absence of intrastate carriers.

⁴¹ William A. Jordan, *supra*, note 4, at 135, 276-78 and 284-87.

⁴² 1 Official Airline Guide (North American edition, Mar. 15, 1975).

⁴³ William A. Jordan, *supra*, note 4, at 117 and 122-25. Also, CAB orders 74-3-105 (Mar. 25, 1974) and 74-5-75 (May 15, 1974).

⁴⁴ James L. Mitchell, *supra*, note 1, at 7.

the PUC authorized service by Air California, Holiday Airlines and California Sierra Airlines (subsequently replaced by Sierra Pacific Airlines).⁴⁵ From the viewpoint of this Subcommittee, the relevant fact is that in recent years the absence of CAB regulation has resulted in four additional airlines providing scheduled service with large aircraft within California. Thus, there is appreciably more airline rivalry in California today than there would have been under CAB regulation. This is obviously undesirable to the CAB-regulated airlines, but it has demonstrably benefited many California residents and visitors, and it has certainly not resulted in "a single carrier monopolizing all of the California markets," neither in 1965 nor in 1975.

REGULATORY PROTECTION

Mr. Mitchell is right when he says that the PUC "has given great protection to the regulated (intrastate) carriers," but his further statement that "[n]o competitive authority has been authorized" is incorrect.⁴⁶ Between 1968 and 1974 the PUC-authorized rival service between Air California and PSA in the following seven city-pairs: Burbank-San Jose/Oakland, San Diego San Jose/Oakland, Sacramento-Ontario/San Diego, and short-haul San Jose-Oakland.⁴⁷ Furthermore, in 1973 the PUC authorized Holiday Airlines to carry local passengers in the San Diego-Los Angeles, Los Angeles-Burbank and Los Angeles/Burbank-San Jose/Oakland city pairs on flights also serving Lake Tahoe.⁴⁸ This provided limited rivalry to PSA's unrestricted services between those cities.

There is no question but what both the PUC and the CAB have given route security to the airlines under their respective jurisdictions. There is also no question but what the adoption of regulation was supported by the trunk carriers in 1938 and by PSA in 1965. Indeed, this support of regulation by the concerned carriers is extremely relevant evidence about their perceptions of who benefits from government regulation. There is considerable question, however, about Mr. Mitchell's statement that PSA's management believed it could not obtain the necessary financing to buy Boeing 727 aircraft "without the security of a certificate,"⁴⁹ and there is also some question that "there was a public outcry for an end to the uncertainty and chaos resulting from the free entry and exit of the intrastate air carriers."⁵⁰

Several pieces of information are relevant to the matter of buying new Boeing 727's. First, PSA was able to finance and purchase six new Electras between 1959 and 1963 without the benefit of regulated route security.⁵¹ Second, during the six years from 1959 through 1964, PSA accumulated profits after taxes of \$7.3 million on total operating revenues of 76.0 million—hardly a record that would discourage investors, especially in light of the low profits of the CAB-regulated airlines during the early 1960s.⁵² Third, note 1 of PSA's 1964 annual report contains a full description of PSA's financing for its first six Boeing 727's and, as can be seen by reading appendix A of this testimony, there is no indication in that note of any undue financial difficulties. This, even though the arrangements were completed in February 1965, several months before the enactment of assembly bill 413 gave the PUC the power to grant route security to PSA.⁵³

Whether or not there was actually a "public outcry" for regulation is more difficult to determine. The first attempt to extend substantial PUC regulation over intrastate airlines occurred back in early 1949. If there was a public outcry for such regulation it was unsuccessful, for Senate bill 1624 was not enacted.⁵⁴ Appendix B of this testimony gives two editorials from that period which opposed or questioned the purpose of that bill, so it is clear that any possible outcry was not unanimous.

⁴⁵ William A. Jordan, *supra*, note 2, at 7. Mr. Mitchell mentions Air California and Holiday Airlines on pp. 12 and 13 of his statement, but he overlooks Sierra Pacific Airlines.

⁴⁶ James L. Mitchell, *supra*, note 1, at 12.

⁴⁷ PUC decisions 74248 (June 11, 1968), 76110 (Sept. 3, 1969), 79085 (Aug. 24, 1971), and 83476 (Sept. 17, 1974). PSA's successful effort to eliminate Air California from the Burbank-San Jose/Oakland city-pairs is described in William A. Jordan, "Some Predatory Practices Under Government Regulation?" 10-22 (University of Toronto-York University Joint Program in Transportation, Research report 26, January 1975).

⁴⁸ PUC decision 81893 (Sept. 14, 1973).

⁴⁹ James L. Mitchell, *supra*, note 1, at 12.

⁵⁰ *Id.* at 11-12.

⁵¹ William A. Jordan, *supra*, note 4, at 42-43. Also, PSA Annual Report, 1 (1973).

⁵² *Id.* at 336-38. Also, CAB, *supra*, note 27, at 74.

⁵³ *Id.* at 2.

⁵⁴ Senate bill 1624, introduced Apr. 26, 1949.

My own intensive study of the California intrastate carriers began in January 1965,⁵⁵ yet I was unaware of the State Legislature's plan to increase the PUC's jurisdiction over intrastate passenger airlines until my first visit to the PUC's offices in early March 1965. At that time a PUC official advised me that assembly bill 413 was being considered and, when I asked why this was happening after so many years of unregulated service, his reply was to the effect that this time PSA supported the legislation.⁵⁶ If there were a public outcry favoring regulation one would expect it to be reflected in newspaper articles of that period. In the course of my research I went through the clipping files of the Los Angeles Times and the San Diego Tribune looking for information concerning intrastate carriers. Nowhere in those files did I come across an article containing statements from passengers (or others) complaining about intrastate-carrier service and asking for airline regulation. Mr. Mitchell may be able to supply contrary evidence, but until he does my experiences lead me to believe that assembly bill 413 was enacted with little publicity, let alone "public outcry."

EFFICIENCY AND LONG-RUN PROBLEMS

Unfortunately, Mr. Mitchell failed to focus on that part of my testimony concerning the effect CAB regulation has had in substantially decreasing airline efficiency.⁵⁷ The evidence that regulation greatly decreases efficiency (and increases costs) should be particularly disquieting to the regulated airlines because it indicates that there is a fundamental economic weakness in their position even if they are successful in maintaining the regulatory status quo. The history of the regulated airlines has been one of recurrent financial problems despite an overall secular growth rate since World War II of 12.7 percent per year, compared with a growth in constant-dollar GNP of 3.5 percent.⁵⁸ Thus, there is reason to predict even more problems will occur under existing regulation should the airlines enter a period of small growth or, eventually, secular decline.

The conclusion of my testimony mentions two legislative alternatives to the status quo which would serve to increase airline efficiency. One alternative is to "perfect" CAB regulation by placing every significant aspect of airline operations under the control of the Board. The second alternative is to deregulate by abolishing the CAB's control of entry and exit and to allow any airline to lower its fares without regulatory constraint.⁵⁹ Furthermore, under this second alternative the airlines would be subject to existing antitrust laws.

The CAB has been moving in the direction of the first alternative over the past six years by authorizing an increasing number of capacity agreements and by discouraging other aspects of service-quality rivalry such as lounges and liquor "wars."⁶⁰ The perfection of CAB regulation may have considerable appeal to many airline executives and investors since it should do much to solve the current financial problems of some of the airlines. At the same time, however, this move would be detrimental to airline suppliers such as aircraft and engine manufacturers, would decrease the quality of service offered passengers without compensating decreases in fares, and would allow unions and other monopolistic suppliers of inputs to increase the prices of their inputs or to establish work rules

⁵⁵ On pages 2 and 3 of his statement, Mr. Mitchell reports that most of the research for my dissertation was done while I worked at Western Air Lines from 1960 to 1964. I wish that had been the case, both because it would have resulted in the dissertation being completed in 1966, rather than 1968, and because I much prefer being paid to do research. Unfortunately, as reported in the preface to my book, while my work at Western made me keenly aware of the intrastate-carrier "problem," and thus was necessary for the conception and design of the dissertation, the actual research was undertaken primarily between January 1965 and August 1967 while I was a doctoral student at UCLA and an acting assistant professor at Stanford University. During this time, however, my friends and former associates at Western very generously allowed me to use Western's library of CAB publications, tariffs, Official Airline Guides and files concerning Western Air Lines of California. These were very important contributions to the study.

⁵⁶ Conversation with Mr. John L. Pearson, California Public Utilities Commission (Mar. 8, 1965).

⁵⁷ William A. Jordan, *supra*, note 2, at 29-43.

⁵⁸ Total certificated route air carriers produced 791 million revenue ton-miles in 1946 and 22,425 RTM in 1974. Gross national product in 1958 dollars increased from \$312.6 billion in 1946 to \$821.1 billion in 1974. CAB, *supra*, note 27, at 12, and Air Carrier Traffic Statistics 1 (December 1974). Also, Economic Report of the President, 250 (February 1975).

⁵⁹ William A. Jordan, *supra*, note 2, at 46-47.

⁶⁰ William A. Jordan, "Airline Capacity Agreements: Correcting a Regulatory Imperfection," 39 *Journal of Air Law and Commerce*, 184-93 and 202-5 (spring 1973).

whereby less input is received for a given price. This latter point is very important because it implies that while short-run efficiency is possible through increased regulation, the long-term picture is not encouraging.

In addition to the long-run efficiency problem, unless those administering this "perfect" CAB regulation prove to be remarkably perceptive and responsive to the development of substitutes for airline services and to this and other sources of changes in the demand for airline services, the perfection of regulation has the added drawback of introducing rigidities and economic excesses that will hasten the decline of the airline industry. A Penn Central type problem is much more likely under the extensive regulation of a few large airlines than under the deregulation alternative. Deregulation would result in services being provided by many smaller airlines. Not only would these airlines have to be responsive to economic changes in order to survive, but the failure of any one or several of them would cause little dislocation in the economy. The recent proposal to merge Pan American and TWA is only one indication of how merger, a frequent regulatory solution to airline problems, could result in the development of an airline that was so large that its demise would yield a crisis for the nation.⁶¹

Since increased regulation promises immediate solutions to problems, and since short-run solutions are often given priority over long-run solutions, the alternative of "perfecting" CAB regulation is one that will have considerable appeal. Some specific suggestions on how CAB regulation can be improved are presented in one of my recent papers which the Subcommittee may find useful.⁶² Mr. Mitchell, however, chose to emphasize possible problems resulting from deregulation, so the following sections of this testimony will respond to some of his analyses and predictions concerning deregulation.

SERVICE TO DENSE MARKETS ONLY?

A frequent prediction by airline executives is that without CAB regulation scheduled airline service would be available only over the densest routes connecting the largest cities in the country. Mr. Mitchell makes one of the milder statements in this vein when he says "[a]t most, a few carriers will survive and they will tend to limit their activities to the densest markets."⁶³

There are several things wrong with this prediction. First, it is inconsistent with the California intrastate experience. Second, it ignores the long-standing policy of, initially, the regulated trunk carriers and, now, the local-service carriers to drop small cities from their routes. Third, it is inconsistent with the law of diminishing marginal returns.

Evidence on the California experience is presented in my book.⁶⁴ Actually, as discussed above, the efforts of the intrastate carriers to serve small city-pairs are quite remarkable given the prior coverage of the subsidized CAB-regulated airlines in California.

The relative coverage of small cities by various classes of airlines is also instructive. As of May 1, 1973, the trunk carriers provided service to only 183 communities in the 48 contiguous states, compared with 401 for the subsidized local service carriers and 333 for the unregulated and unsubsidized commuter carriers.⁶⁵ Of the 244 unduplicated communities with 1970 populations of 25,000 or less having scheduled airline service, the trunk carriers provided service to only 17 (at ten they provided the only service), while the local service carriers operated at 129 such communities, and the commuter carriers at 132 (102 of which received their sole service from a commuter carrier).⁶⁶ When it comes to unsubsidized service, small communities clearly received much more service from the unregulated commuter carriers than from the regulated trunk carriers. If deregulation meant the termination of trunk-carrier service at such small communities, the loss would be negligible and would quickly be taken up by commuter or local service carriers.

The law of diminishing marginal returns says, simply, that if you hold one physical input constant and increase the use of another input, eventually the

⁶¹ Charles E. Schneider, "Banks Asked to Support Pan American," 101 *Aviation Week and Space Technology*, 31-32 (Sept. 23, 1974).

⁶² William A. Jordan, "If We're Going to Regulate the Airlines, Let's do it Right," James C. Miller III, ed., *Perspectives on Federal Transportation Policy* (1975).

⁶³ James L. Mitchell, *supra*, note 1, at 13.

⁶⁴ William A. Jordan, *supra*, note 4, at 17-24, 115-33 and 258-59.

⁶⁵ CAB, *A Profile of Airline Service in the 48 Contiguous States*, May 1, 1973, table 1 (December 1974).

⁶⁶ *Id.* at tables 3, 4, 5 and 9.

marginal output from using more of the second input reaches a peak and begins to decrease. A common classroom example is adding fertilizer to an acre of land to grow wheat, but an analogy for the airlines would be adding airplanes to a single major route, such as New York-Chicago-Los Angeles, to produce airline service. The results of operating over 2,000 aircraft eight hours a day on this single route are obvious and ludicrous.⁶⁷ Somewhat less obvious, but equally ludicrous, would be the operation of more than 2,000 aircraft over routes connecting just the top 100 city-pairs. The law of diminishing returns predicts, and quite reflection supports, that aircraft fleets would be dispersed over the entire U.S., covering high, medium- and low-density routes until the cost (including the market rate of return on investment) of producing the last flight with a suitable aircraft on each route would roughly equal the revenues obtained from that flight. This doesn't mean that scheduling would be error free. Scheduling mistakes are made under regulation and they would occur without regulation. The difference is that without regulation open entry would quickly discipline those who make frequent mistakes, while the discipline of the market works more slowly under regulation.

SERVICE QUALITY AND FARES WITHOUT REGULATION

The California intrastate experience leads Mr. Mitchell to believe that "over the long term, fares would be higher and service would be inferior to that existing under a properly regulated system."⁶⁸ Unfortunately, it is impossible to make a precise evaluation of this statement because the characteristics of "a properly regulated system" are not specified. However, assuming such a system would have many of the properties of historical CAB regulation, the California experience does demonstrate that service quality without regulation would indeed be inferior to that existing under CAB regulation. Without regulation coach service would be even more dominant than it is today and there would be little first-class service; aircraft design would emphasize low operating costs relatively more than the traditional emphasis on service quality; and passenger load factors in excess of 70 percent would be the norm rather than the present-day 50- to 55-percent average.⁶⁹ But, in contrast to Mr. Mitchell's prediction, the California evidence is clear that without regulation fares would be as much as 50 percent lower than the coach fares authorized by the CAB. The great acceptance of intrastate-carrier service in California indicates that a majority of passengers prefer this tradeoff of somewhat inferior service quality for much lower fares.⁷⁰

DISTORTIONS FROM PROTECTED INTERNATIONAL OPERATIONS

Mr. Mitchell raises the interesting possibility that, with open entry domestically, carriers having governmental protection in their international operations would enjoy "a substantial competitive advantage" over carriers limited to domestic operations.⁷¹ If this were truly an important advantage, TWA should now be the dominant transcontinental carrier (which it is not), and American should have fought to retain its North Atlantic routes in 1950 and its South Pacific routes in 1974 (which it did not).

Actually, the California experience provides relevant evidence regarding this matter. As far as airline regulation is concerned, California can be considered to have been a "country" with entry open to any carrier on its domestic routes, but with controlled entry into "international" routes to all other countries, including those 47 "sovereign states" located to the north and east of it. Despite the limited geographic size of the "country" of California and the resulting relatively small demand for "domestic" airline services, its unprotected "domestic" carriers set the basic service-quality and fare levels wherever they provided service, and were able to force the protected "international" airlines to offer low-fare coach services in those city pairs. True, the citizens of California were greatly benefited by their airlines, and only the most efficient of the California carriers were able to survive, but those few carriers that did survive were also benefited by their government allowing them the opportunity to enter and

⁶⁷ The system fleets of all trunk carriers (minus Pan American) and local service carriers totaled 2,164 aircraft as of Dec. 31, 1972. CAB, *supra*, note 27, at 1-2.

⁶⁸ James L. Mitchell, *supra*, note 1, at 4.

⁶⁹ William A. Jordan, *supra*, note 4, at 34-56 and 200-209.

⁷⁰ William A. Jordan, *supra*, note 2, at 7-29.

⁷¹ James L. Mitchell, *supra*, note 1, at 14.

test their mettle against the protected "international" airlines. To use Mr. Mitchell's word, the results may have been "distorted" from what would have occurred had entry been open in the much larger market provided by the 47 adjacent "countries," but many consider the results to have been preferable to the other distortion that would have occurred had entry never been open so that California would have had to depend on "international" airlines for all of its airline services.

Mr. Mitchell points out a major problem faced by airlines with "international" routes when he says "the markets these stronger (international) carriers would tend to serve would have little to do with domestic air transportation needs of the public. The markets served would be those best suited to international travel, and the services would be so geared."⁷² This may explain why the certificated trunk carriers were unable to maintain their dominant positions in California city pairs large enough to support two or more carriers. The specialized California intrastate carriers geared their services to the air transportation preferences of the California public, and the majority of these passengers responded by utilizing those more convenient services. The same would occur were all U.S. city-pairs open to any carrier meeting FAA operating standards. To the extent carriers with international routes geared their services to international demand they would be at a disadvantage in domestic U.S. routes.

Mr. Mitchell also states that "carriers with strong international routes would have a substantial competitive advantage which could and undoubtedly would be used to improve their economic position to the detriment of carriers without such protected routes."⁷³ I assume he means that profits from international routes would support predatory pricing/practices by these carriers. Since 1958, there have been a number of studies of alleged predatory pricing in unregulated industries, and all have found predation to be relatively costly and, therefore, rare. I have recently completed a study of three alleged cases of predatory practices among airlines operating under government regulation, and my findings are generally consistent with the earlier studies.⁷⁴ Predation appears to be a favorite spectre to be raised by suppliers who fear the "chaos" of open entry. It happens, however, that predation occurs much more frequently in speeches and trade-journal articles than it actually occurs in the economy. It may be that the CAB-regulated airlines practiced predation against the California intrastate carriers from 1949 to 1965. If so, they are certainly in a position to provide clear evidence to support allegations that carriers with international routes will have a predatory advantage over domestic carriers operating under open entry. But this evidence should be forthcoming before any great weight is given to such allegations.

DISTORTIONS FROM PROTECTED INTRASTATE OPERATIONS

"At the other end of the spectrum, the air transportation system would be distorted by protective action by state aeronautic boards and public utility commission."⁷⁵ This is another interesting idea and it has antecedents in the railroad industry through 1920. The problem for the railroads was largely resolved by the Supreme Court and Congress in favor of the primacy of interstate commerce.⁷⁶ Similar decisions for the airlines would be even more effective since the comparative advantage of the airlines is in long-haul transportation, making interstate traffic much more important in airline than in railroad operations. If nothing else, the relative size of interstate traffic is evidenced by the fact that there are only a few states in which intrastate airlines have appeared.

Appendix B of my original testimony shows that intrastate city-pairs provided 21 out of the top 100 origin-destination city-pairs in 1972 in terms of passengers (but not RPM).⁷⁷ However, 14 of these 21 city-pairs were located in California and two were in Texas, leaving only five more large intrastate city-pairs in the remaining 47 states (excluding Hawaii). Also, there is no evidence to date that state regulation in California and Texas has been detrimental to passengers. Furthermore, even assuming full carrier protection, it is difficult to imagine many

⁷² Id. at 15.

⁷³ Id. at 14.

⁷⁴ William A. Jordan, *supra*, note 47. Several of the earlier studies are noted in this paper.

⁷⁵ James L. Mitchell, *supra*, note 1, at 15.

⁷⁶ Gabriel Kolko, *Railroads and Regulation, 1877-1916*, 164-69 and 217-30 (1965).

⁷⁷ William A. Jordan, *supra*, note 2, at 50-52. The state of Hawaii is excluded since flights over international waters make all intrastate service subject to CAB regulation.

new airlines being attracted to intrastate city pairs within Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New Jersey and Delaware; nor do the city-pairs within North Dakota, South Dakota, Nebraska, Wyoming, Montana, Idaho, Utah and others seem to hold much promise to intrastate carriers operating large aircraft. Overall, given the allure of cities in adjacent states and the evidence that protective regulation decreases airline efficiency, it would be very surprising if state regulation would significantly distort air transportation in the U.S.

PERIOD OF ADJUSTMENT

Mr. Mitchell contends I am incorrect in predicting that about ten years would be required for the airlines to adjust to the deregulation of entry and fare decreases. Instead, he predicts that conditions would remain chaotic and unstable.⁷⁸ For understandable reasons, he equates stability with no new entry and with no carrier failure. This is similar to an error students frequently make in thinking that equilibrium in a perfectly competitive market structure means there is no change in industry membership. Actually, in a competitive market structure inefficient firms are regularly replaced by new, more efficient firms. Thus, individual firms experience "chaos," but the industry itself functions smoothly in efficiently providing desired goods and services to consumers at low prices.

Nothing in the California experience nor in my analysis indicates that after a 10-year adjustment period all of the 100 to over 200 airlines then in existence would continue providing service with no failures, no new entry or similar rigidities. This is not the way an unregulated economy works. Aggressive, efficient firms will, of course, replace inefficient firms. This is undesirable to those replaced, but it benefits consumers as well as the owners and employees of the efficient firms. My 10-year prediction refers to the period of time required to eliminate the excess capacity, high fares and important inefficiencies that have developed in the CAB-regulated industry over the past 37 years. From Mr. Mitchell's viewpoint, and that of individual airlines, "chaos" will remain long after this period of adjustment is over.

CONCLUSION

Enough has been said to explain why I disagree with Mr. Mitchell's analysis of the evidence from the California intrastate and other relatively unregulated airline experiences. Now it is time to step back and look at the overall picture. No sensible person will argue that, given the limits of technological developments, the service of the existing CAB-regulated airlines has been anything but outstanding during the past 37 years. Similarly, it cannot be seriously proposed that California travelers have had inadequate service from the combined operations of all the airlines with routes in the state. Certainly, over the years the average quality of service within California has been somewhat lower than that offered in similar East coast city-pairs, but Californians were given a choice between high-quality, high-fare service and lower-quality, lower-fare service, and the great majority (but not all) opted for the latter. The expressed preference favored those intrastate carriers able to provide service in a very efficient manner. There were many painful and heartbreaking experiences among those California intrastate carriers unable to succeed within the restricted confines of the state, but at least they were allowed to try and those few that were successful did benefit from that opportunity. At the same time, most passengers also benefited.

Mr. Mitchell says that Continental Air Lines does not oppose new entrants into the CAB-regulated airline industry and that it has urged the Board to "have a more open mind than it has shown in the past to consider the applications of new entrants."⁷⁹ Unfortunately, the Board has had an absolutely closed mind regarding new-carrier applications for trunk service since 1938, and it has allowed only one airline, Air New England, to enter the ranks of the local service carriers since 1950. Given this consistent record, it seems reasonable to conclude that "a more open mind" will be inadequate to provide the benefits of open entry to consumers of airline services. Furthermore, Mr. Mitchell makes no mention of the related requirement that there be no regulation of fare reductions.

Perhaps the most eloquent testimony regarding the actual effects of CAB regulation is contained in the published statements of industry spokesmen con-

⁷⁸ *Id.* at 47. Also, James L. Mitchell, *supra*, note 1, at 4 and 11.

⁷⁹ James L. Mitchell, *supra*, note 1, at 15-16.

cerning the likely destruction of the airline industry if open (free) entry were to become a reality.⁸⁰ In essence they are saying that regulated airlines with as much as 37 years of experience would be no match for new airlines. Why should these experienced airlines with their existing aircraft, trained personnel, established routes and markets have such fear of commuter carriers growing into larger operations, supplemental carriers providing scheduled services, existing intrastate carriers expanding into adjoining states, and completely new airlines being organized by, say, former airline or Air Force personnel? Do they really appreciate the apparent degree to which their regulated operations have become inefficient, or is it merely a habitual and understandable effort to protect the status quo and save themselves from making minor adjustments if, indeed, they are the best-qualified producers of airline services?

The fears of industry chaos and instability reflect the viewpoint of suppliers, not consumers. Furthermore, it overlooks the fundamental reality that there is a great demand for airline services. The advantages of air travel have been apparent to man since the dawn of time. Man's ingenuity made air travel possible starting in 1903, commercial air transportation become economically feasible in the late twenties and early thirties, and the tremendous technological advances achieved in World War II and subsequent years have made air transportation the most preferred way to travel long distances. While the rate of growth shows some signs of tapering off (assisted by relatively high fares), the fundamental demand for this service remains strong and pervasive. It is this demand, not CAB regulation, that has provided, and will continue to provide, stability in the industry from the viewpoint of the consumer. This great demand means that airlines will continue to operate for many years under existing CAB regulation as well as under a "perfected" CAB regulation, despite the long-run problems and rigidities associated with regulation. Alternatively, it also means that airline services will continue to be supplied if regulation is abolished. Under deregulation, however, the economic viability of the industry will be greater than under regulation because surviving airlines will be more efficient and more sensitive to consumer demand.

APPENDIX A.—NOTES TO PSA'S 1974 FINANCIAL STATEMENTS

1. *Boeing Model 727-14 jet aircraft.*—The company has on order six Boeing Model 727-14 jet aircraft. Five aircraft are scheduled for delivery in 1965 and the sixth in 1966. Unpaid open commitments relating to these aircraft and related spare equipment totaled \$25 million at December 31, 1964 of which \$22.5 million is due in 1965.

In connection with these purchases, in February 1965, the company entered into a loan agreement with the Bank of America National Trust and Savings Association, Connecticut General Life Insurance Company and Teachers Insurance and Annuity Association of America to borrow \$23 million by issuing 5½ percent series A installment notes in the amount of \$14 million and 5½ percent series B installment notes in the amount of \$9 million. Series A installment notes will be payable in monthly installments of \$166,667 commencing January 1, 1966 with the final payment due December 1, 1972. Series B installment notes will be payable in quarterly installments of \$500,000 commencing March 1, 1973 with final payment due June 1, 1977.

The existing 5½ percent installment notes payable to bank of \$3,258,319 are to be prepaid without penalty from the proceeds of the above notes.

In addition to the above mentioned financing, the company has made arrangements to borrow up to \$1.1 million at 6 percent interest from the manufacturer for purchase of the sixth aircraft. The amount borrowed will be repaid over a 5-year period.

The company will use certain of its current funds to meet the commitment demands in 1965 in lieu of drawing on loan funds until necessary.

Under the terms of the related chattel mortgage indenture, the Electra aircraft, flight equipment and parts inventory and the Boeing Model 727-14 aircraft and spare equipment, when delivered, are pledged to secure these notes. The indenture, among other restrictions, limits the retained earnings available for payment of cash dividends to \$1 million plus 75 percent of net income less 100 percent of net losses after December 31, 1964. Further, the company must

⁸⁰ 102 Aviation Week and Space Technology, 20-22 (Apr. 7, 1975).

maintain stockholders' equity of not less than \$9 million and as of September 1965, working capital of \$1 million or $8\frac{1}{3}$ percent of cash operating expenses for the preceding fiscal year whichever is greater. \$6,347,871 of retained earnings at December 31, 1964 is not available for cash dividends under these provisions.

2. *Common stock.*—In January 1964, the company declared a 40 percent stock split in the form of a stock distribution of two shares of common stock for each five shares held. In addition, the Board of Directors increased the stated value of the common stock to \$1 per share.

Under the restricted stock option plan approved by the stockholders in December 1962, options on the company's common stock were authorized to be granted to certain key employees at not less than 95 percent of the fair market value of the stock at the date of grant. The options are exercisable one-third each year beginning 1 year after grant date and will expire 5 years from grant date. Options to purchase 56,000 shares were granted in 1963 at an option price of \$12.90 per share after giving effect to the above mentioned stock split). At December 31, 1964, 49,237 shares of common stock are reserved for employee stock options outstanding and options for 11,904 shares are exercisable.

At December 31, 1964, 7,283 shares of common stock are reserved for conversion of the $6\frac{1}{2}$ percent subordinated convertible notes based on the conversion price of \$7.14 per share.

3. *Federal income tax.*—In 1964, the investment credit has been reclassified on the accompanying balance sheet from accumulated obsolescence and depreciation, and is included within the deferred federal income tax. The balance of the investment credit is being amortized as a credit to the provision for federal income tax over the remaining useful lives of the related assets.

4. *Commitments.*—Commitments for purchase of new flight equipment are discussed in note 1.

Annual rent commitments under various long-term property and equipment leases are approximately as follows: 1965—\$294,000; 1966—\$226,000; 1967—\$221,000; 1968—\$167,000; 1969—\$130,000; 1970 through 1972—\$105,000; 1973 through 1981—\$87,000 and \$76,000 thereafter until 1990 (the reductions resulting mainly from the expiration of leases).

5. *Expanded route structure and fare changes.*—In January 1965, the company made or has pending changes in its route and fare structures. See the president's letter for comments regarding these matters.

APPENDIX B.—EDITORIALS REGARDING SENATE BILL 1624 (MAY 1949)

THE DOGFIGHTING AIRLINES

[From the Burbank Daily Review, 2, May 10, 1949]

The airline politicians are at it again.

This week, air politics threaten another of the low-cost independent flying services based at Lockheed Air Terminal in Burbank.

Under a bill introduced into the state senate and now before the committee on public utilities, airlines which carry on their business entirely within the state would come under regulation of the state public utilities commission.

The independent airline carriers, which charge \$9.99 for a trip from Burbank to San Francisco, not including tax, against \$21 for the major airlines, are protesting the bill introduced by State Senator George J. Hatfield of Newman.

Senator Hatfield represents Madera and Merced counties, both of which together have a population which approximates that of the city of Burbank. Neither county boasts of a city which would merit service by any scheduled air carrier or conceivably have an interest in the airline problem—except for the private interests of individuals like Senator Hatfield.

Nevertheless, Senator Hatfield has made air politics his own particular interest, clearly in the interest of "protecting" the public from low-cost air transportation.

Any casual onlooker who has only a smattering [sic] of information concerning the machinations of the airline politicians ought to be disgusted by the series of attempts made to hamstring air progress.

All planes operating out of major airfields are under the supervision of air safety regulations of the federal Civil Aeronautics Authority. There is no ques-

tion that the Burbank-to-San Francisco lines fly safely. One airline involved has a record of 5,800,000 accident-free passenger revenue miles. There is no question that the service is not cutthroat competition, because the independent small airlines cannot afford to operate at a loss.

Independent nonscheduled airlines between Burbank and east coast cities have recently been the victims of attack through the federal Civil Aeronautics Board, not to be confused with the CAA.

These efforts to keep flying out of the range of the average man's pocketbook are clearly for the benefit of a few large companies, which evidently do not stop at anything including political means to achieve profits.

It is high time that the airline lobbyists realize what they are doing. They will eventually legislate themselves into unprofitable operation, just as the railroad lobbyists of another day succeeded in doing.

Certainly, the California Public Utilities Commission, which is responsible for rail, streetcar, and buslines in this state, does not have a record of encouraging or providing the public with excellent transportation of any type. If existing facilities prove anything, the opposite has been the case. We would hate to see the commission obtain control of air travel in this state also.

What can be done to protect the public's interest in aviation? The public certainly deserves more consideration from state and federal government than do the private interests of the large corporate interests.

APPENDIX C.—VALLEY AIR SERVICE

[From the Valley Times, Editorial page (n.d.)]

Intrastate flights originating at Lockheed Air Terminal and serving the Bay area, primarily, are being threatened with "grounding tactics" by the provisions of Senate Bill 1624, sponsored by Senator Hatfield.

These regular flights constitute practically the whole of intrastate passenger business originating in the Valley for the convenience of the thousands of air-minded citizens who daily use these lines to the north.

Most of the commercial lines come into the Municipal Field, many miles from the Valley, except when fog drives them to Lockheed Air Terminal.

The importance of having air passenger service available to the more than 7,000 persons, who, during the period from March 15 through April 30, this year, were carried by Robin Airways, Inc. between Burbank and Oakland, and to the 7,012 passengers flown by Central Airlines during the month of April from Burbank to San Francisco, is evident.

In the light of these phenomenal passenger figures which established the need for flights into and out of the Valley, it would appear that Senator Hatfield should withhold action on his bill pending completion of a survey of nonscheduled flights being prepared by the Civil Aeronautics Board.

It also appears that, with the coach-type, average-man-priced service these local lines are rendering, a complete study of their activities is warranted before they are subjected to an unnecessarily quick decision on their fate made without reference to actual factual data.

This unheralded bill was scheduled to come before the Senate for reading on May 11. However, when these affected companies found out about the impending legislation, they were able to delay this reading and to secure, instead, a public hearing on May 16.

Adequate discussion with full deliberation upon this important matter must result in continuing this service so important to valleyites.

The valley, which is a cradle of aviation industries and air enthusiasts, certainly justifies passenger service from the Lockheed Air Terminal to the Bay area and to other states in the nation.

We feel that Senator Hatfield, when apprised of these facts at the public hearing, will deem it wise to proceed cautiously and await the important CAB report before acting on his bill.

RESPONSE OF CONTINENTAL AIRLINES, INC. TO SUPPLEMENTARY TESTIMONY OF DR. WILLIAM A. JORDAN

On April 21, 1975, Professor Jordan submitted a 39-page "supplementary testimony" which, in essence, is a rebuttal to the supplementary statement filed

with the subcommittee by James L. Mitchell, vice president of regulatory proceedings of Continental Airlines.

Although we find many of Professor Jordan's statements to be misleading,¹ we will not engage in a point-by-point rejoinder. A far better purpose can be served at this juncture by directing attention to the critical issue which confronts the subcommittee. That issue, simply stated, is what conclusions can be drawn from the California intrastate experience, and can that experience be reliably projected to a national system.

As Mr. Mitchell pointed out in his statement, there are "some limitations on generalizing too much from this [the California] experience." (Statement, p. 5.) Professor Jordan apparently agrees, when he states that "[t]here are indeed limitations to generalizing from the California (and Texas) experience. . . ." (Supplementary Testimony, p. 15.) However, after making this statement, Professor Jordan goes on to generalize with the assertion that:

"With open entry nationwide, airlines could operate more efficiently and enjoy lower operating costs than experienced in constrained intrastate areas, demand for their services would be far greater, and there would probably be proportionally fewer failures than what occurred within California" (*Id.*).

At a later point in his testimony, Professor Jordan argues that:

"The specialized California intrastate carriers geared their services to the air transportation preferences of the California public, and the majority of these passengers responded by utilizing those more convenient services. The same would occur were all U.S. city pairs open to any carrier meeting FAA operating standards (*Id.*, p. 30, emphasis supplied.)

We disagree with Professor Jordan that such broad generalizations can be projected from the California experience. The California experience, as Professor Jordan now seems to realize is characterized by a stable base of service required to be provided by the CAB-certificated carriers coupled with strong price and service competition from aggressive intrastate carriers who had to be aggressive in order to make inroads into the marketplace. The two classes of airlines complemented one another, and the public benefited by this blend.

Notwithstanding the financial failures of various intrastate carriers, the major California markets continued to receive good basic service, because they were served by CAB-certificated air carriers. Even Professor Jordan makes this point by naming the CAB-certificated carriers to support his argument that the public received reliable service:

"Surely, given the continuing services of PSA, United, TWA, Western, Pacific and other airlines, it is incorrect to say that passengers had no assurance of receiving reliable air service" (Supplementary testimony p. 16.)

In the major markets, the people of California have had the best of both worlds—stable, reliable service by the CAB-certificated carriers and aggressive price competition stimulated by the intrastate carriers. In Professor Jordan's words,

"Overall, the rivalry between individual carriers, regardless of their regulatory classification, has resulted in an outstanding coverage and quality of service being provided by all airlines as a group. As far as the consumer is concerned it is this overall level of service that counts, and the airline consumer has been amply blessed in California." (*Id.*, p. 9 emphasis supplied.)

Without the presence of the CAB-certificated air carriers, the people of California would not have enjoyed the benefits of the competitive rivalry which existed between PSA and these airlines. In criticizing Mr. Mitchell for failing to mention the CAB-certificated carriers, Professor Jordan points to their presence as having prevented a "monopoly situation."

"Was there any airline monopoly in California? Mr. Mitchell states that by 1965 the period of open entry in California 'produced a single carrier monopolizing all of the (major) California markets.' He fails to mention that at that time, in addition to PSA, service was provided in major California city-pairs by American, Delta, National, TWA, United, Western and the three predecessors of Hughes Airwest (Bonanza, Pacific and West Coast). This was hardly a monopoly situation (*Id.*, p. 19).

¹ An example is his criticism of Continental at pages 8-9 of his testimony for failing to serve some of the California satellites, which ignores the fact that community opposition at Long Beach and Orange County to any new airline entry on environmental grounds forced Continental to curtail its service plan.

It is clear from the history of the California experience that the CAB-certificated carriers provided two significant public benefits. First, they provided a stable base of air service on which the public could rely when confronted by the financial failures of the intrastate carriers. Second, the very presence of the CAB-certificated carriers, as well as their competitive response, spurred PSA to offer low fares and frequent schedules in the primary corridor markets between San Diego, Los Angeles and San Francisco. PSA had to offer these benefits in order to succeed in the marketplace in competition with the CAB certificated carriers.

The competitive battle between PSA and the CAB-certificated carriers is described in a 1966 article published in the *Journal of Air Law and Commerce*.² That article, which is a portion of a prize winning paper at Yale University, describes PSA's entry into the Los Angeles-San Francisco market with low fares and frequent service and the competitive response by TWA, United and Western with similar fares and even better service. For example, Western responded to PSA's Electra service by undercutting PSA on price and using DC-6B's. United introduced pure jet aircraft with a fare only \$1.05 higher than that charged by for Electra service. United and TWA both offered commuter service.

This varied competitive response by the trunklines reduced PSA's market share and spurred PSA to improve its own service by upgrading its equipment to pure jets and increasing its schedules. PSA was then able to recapture its lost traffic. The public was the obvious beneficiary of this competitive struggle:

"Thus PSA, through vigorous competition in fares, equipment, and scheduling, has been able to succeed in this important market. The trunks have recently met the competition, and the advantages to the consumer are evident . . ." (Id., p. 609.)

Had the trunklines not been serving the market, PSA would not have felt the pressure to improve its service, and the public would not have been presented with the variety and range of service and fare offerings that were made available.

Projected to a national scale, this experience indicates that the public would benefit by new entry into air transportation, just as it was benefited by PSA's entry into the prime California corridor markets. Indeed, that has been Continental's position, as expressed by Mr. Mitchell:³

"In fact, we believe that new entrants maintain vitality in the industry. They bring innovation, which means public benefits. Moreover, the threat of new entrants being permitted into the industry spurs the incumbents to better serve the public . . ."

But, as Professor Jordan concedes by his own arguments, the California experience also makes clear that the public is better served, if, in addition to receiving service and fare benefits from new entrants, it is assured of continuing, reliable air service from certificated air carriers. The California experience shows that competition works in both directions—the new entrants spur the incumbents to react with improved service which, in turn, spurs the new entrants to improve their own service. At the same time, the public can rely on continuing service by the certificated carriers if new entrants should fail.

Viewing the California experience with caution—because, after all, that experience is related to very high density commuter markets—one nevertheless can conclude that the CAB should undertake to certificate qualified new entrants who would provide new service and fare benefits to the public and stimulate a competitive response by existing air carriers. However, one cannot use the California experience to leap to the conclusion that there should be open entry. Indeed, there is no historic experience to support the concept of open entry in nationwide air transportation. The arguments for open entry, however well-intentioned, are only arguments which reflect the proponents' judgment that open entry will work. The implementation of open entry carries with it the risk that their judgment is wrong. Professor Jordan is certainly entitled to his opinions, but the subcommittee should consider these opinions in the context of what actually happened in California and how that experience can be used to improve what is generally regarded as the best air transportation system in the world. Given the fact that a good national air transportation system does exist, albeit with deficiencies, it would seem a better approach at this juncture improve the system by introducing healthy doses of competition rather than tear-

² Atwood, J.R., "Intrastate Carrier-Competitive Impact-Pacific Southwest Airlines," 32 J. Air Law & Comm. 607, autumn 1966.

³ Supplementary Statement, pp. 15-16.

ing the system apart and risking the possibility that needed public service will be lost.

PREPARED STATEMENT OF EDWIN I. COLODNY, EXECUTIVE VICE PRESIDENT,
MARKETING AND LEGAL AFFAIRS, ALLEGHENY AIRLINES, INC.

Allegheny Airlines was pleased to be included in the list of companies invited to participate in these most vital hearings concerning the future course of regulation of the U.S. domestic air transport industry.

My statement will be directed primarily to the subcommittee's interest in route regulation.

The Federal Aviation Act of 1958 and its predecessor statute has been, by and large, a success. The ability to move by scheduled air carrier on a convenient basis throughout the United States speaks for itself. The safety record of this industry is remarkable, and will undoubtedly continue to improve.

But despite how good we believe the system to be, we know it can be improved upon. There is opportunity for needed service improvements, without amending the statute. Before commenting on this, however, I believe it would be helpful for the subcommittee to know why Allegheny believes the basic statutory approach of the Federal Aviation Act should be left alone.

Let me use Allegheny as an example of the growth and service possible under the existing statute.

Since 1964, Allegheny has grown from a small local airline which served about 1.5 million passengers in 1965, to a large regional carrier which served about 11 million passengers in 1974. Our commercial revenues grew from \$27.5 million to \$366 million in this period. Assets of the company increased from \$45 million to \$290 million. Earnings have grown at a less dramatic rate though they reached over \$6 million in 1974. Retained earnings at the end of 1974 were minus \$578,000. The shareholders have received only two cash dividends in the company's history—5 cents per share in 1965 and 6 cents per share in 1966. Allegheny received no federal subsidy in 1974. Management of the company has remained essentially unchanged for over 20 years.

This record was made possible by three key achievements sanctioned by the Act:

1. Route grants issued pursuant to section 401(a) of the Act;
2. Mergers with two other local service airlines, Lake Central in 1968 and Mohawk in 1972, pursuant to section 408 of the Act; and
3. Approval of the Allegheny commuter agreements pursuant to which the CAB permitted Allegheny to suspend service at loss points in favor of independent commuter operators utilizing smaller equipment.

Allegheny has exercised the authority resulting from the foregoing actions in a vigorous manner, providing service in large and small, as well as competitive and monopoly markets. The Allegheny history is the product of the administration of the Federal Aviation Act by the Civil Aeronautics Board (CAB) which, as an institution, has reflected a wide range of philosophies over the years.

Prior to 1965, the CAB had denied most applications by the local service carriers to serve heavily traveled short or medium-haul markets served by trunklines. Then, the Board shifted its policy and encouraged local carriers to improve their route structures to fit the jet age which was then upon us. To assist in this transition, the CAB adopted a procedure for expediting applications to remove restrictions on local carriers to permit service in competition with trunklines in short- and medium-haul markets, where such services were needed and could be shown to be profitable and subsidy-reducing.

Allegheny applied for and received authority in several large markets, such as New York-Pittsburgh, Chicago-Pittsburgh and St. Louis-Pittsburgh. Allegheny's share of these markets in fiscal year 1974 was 43, 26 and 55 percent, respectively. We have concentrated our jet fleet on 100 passenger, twin-engine DC-9-30 aircraft in single-class configuration at coach fare levels. We emphasize convenient service with necessary amenities. No first-class compartments. No free liquor.

Today, Allegheny is a strong competitor against large carriers such as United, TWA, American and Delta.

We offer a wide variety of discount fares: weekend excursion at 25 percent off, group 10 travel at 33 percent off, tour basing fares at 20 percent off, as well as clergy and military reduced rates.

And we have requested CAB approval to expand the new Bicentennial excursion fares to all markets on our system.

We also have pending a new group fare for small groups between 4 and 9. This new fare would reduce the cost of travel to family and other groups by 20 percent.

Because of our strong discount fare program, we are able to promote Allegheny as the No. 1 moneysaver in a large number of important markets.

While developing as a major factor in the dense short- and medium-haul markets, Allegheny was at the same time developing a new way of providing better service at no cost to the Federal Government for many small cities.

In 1967, the CAB permitted Allegheny to commence the first experiment with a commuter replacement program at Hagerstown, Maryland. The success of the Allegheny commuter experiment is well-known. Under this program 27 cities now receive service from 12 independent air carriers under contract to Allegheny. These carriers operate at a profit with no Federal subsidy support. In 1974, operating small aircraft such as Beech 99, Twin Otter and Nord 262, these carriers generated over one million passengers primarily to and from smaller cities which, prior to the Allegheny commuter, supported only limited frequency and required heavy subsidy support. The consumer benefits at the small cities involved are obvious. By and large, these are the kinds of communities which have received limited benefit from a policy of free entry which already exists under part 298 of the CAB's regulations.

The success of the Allegheny commuter story lies in its integration of small city service to the mainline air transport network of this country. A prime example is Salisbury, Maryland, which enplaned over 31,000 passengers in 1974. These passengers travelled all over the United States and internationally, many of them on Allegheny Airlines through connections at Baltimore/Washington International Airport (BWI), Washington National Airport, and Philadelphia International Airport. This could not be achieved without having the benefit of an integrated system to ease connecting travel and encourage use of the local airports instead of driving 2 hours to BWI to board aircraft.

Furthermore, these passengers have had the benefit of a fare structure similar to that of the local service industry, including joint rates to our Allegheny cities and many offline cities, as well as the discount fares.

I appreciate the concern of the subcommittee as well as the concern of some persons both within the government and outside, with the proposition that our regulatory scheme, by restricting freedom of entry or exit, has led to higher cost air service than need be paid by the travelling public. As stated by one of the earlier witnesses, the Chairman of the Federal Trade Commission, we have the most comprehensive, stable air transport network in the world. In his opinion, however, the cost has been a fare structure on many routes which is higher than would prevail if the industry were characterized by price competition and free entry.

In my opinion, freedom of entry would do nothing to reduce the price of air travel at the small and intermediate cities in this country. I also believe that freedom of entry in the larger markets would ultimately seriously impair service to the small and intermediate cities.

As the subcommittee knows, under part 298 of the CAB's regulations, any individual has been free to start an airline and operate at any city in the country on an exempt basis, provided he utilizes smaller aircraft not exceeding a 30 passenger capacity. Freedom of entry is available, therefore, at smaller and intermediate size cities and has been for years. However, the fares charged by most commuter carriers serving such points is generally higher than certificated carriers charge.

The public interest in markets of this type is less likely to be related to the price of air transportation as it is to the availability. The citizens of northern New England—Vermont, New Hampshire and Maine—have recently concluded years of effort before the CAB in an attempt not to get cheaper air travel, but to get adequate air service. Had freedom of entry been a success in northern New England, it would not have been necessary for the CAB to certificate Air New England to provide new services at the many communities involved, at a substantial cost in Federal subsidy.

I have speculated as to what might have been Allegheny's policy toward small, loss points had we had freedom to exit without CAB approval. It is questionable whether the Allegheny commuter concept would have been created, and most of these 27 points would have simply disappeared from the scheduled airline map.

The CAB has permitted deletion of certificated service at many small points without replacement services being provided, where poor traffic generation

high subsidy were found to warrant such action. While the Board has tended to require that service be retained in some marginal situations, on balance we do not believe the present statute requires amendment to liberalize dropping of points.

So much for the smaller city side of the question.

What about the larger communities and city-pairs with greater traffic density?

The CAB recently released a staff study on domestic routes. This study contains much valuable information on the character of the present system. Particularly significant is the data which shows that relatively few of the 58,000 city pair markets generate the bulk of the traffic. Of total revenue passenger-miles 70 percent are flown in fewer than 1,000 pairs. Of the revenue passenger-mile potential 30 percent is found in only 70 city-pairs.

Of Allegheny's total system passengers 50 percent enplane and deplane on just 39 pairs of points—11 percent of the total of 369 pairs of points served on a single-plane basis (exhibit 1).

It seems to us that a change in direction which permitted freedom of entry would in effect be directed toward larger markets and not the balance of the system.

Some of these larger city-pair markets are served by Allegheny. For example, Pittsburgh-Chicago, New York-Indianapolis, Pittsburgh-Philadelphia, Boston-Philadelphia, Pittsburgh-New York, Buffalo-New York, and Rochester-New York are all in the top 100 ranked passenger markets over 200 miles distance. There can be no question about the ability of these markets to support competitive services. These markets are competitive on all fronts, including price competition.

Each of these markets is not only served by an aircraft schedule serving the specific city-pair, but is part of a traffic flow on schedules which provide beyond service to other points. For example, Allegheny's Chicago-Pittsburgh services go beyond to Allegheny points such as Wilkes-Barre/Scranton, Harrisburg and Allentown, Pennsylvania. The flights which service the Philadelphia-Pittsburgh segment also serve cities such as Albany, Hartford and Providence to the east, Erie, Columbus, Dayton, Louisville and Indianapolis to the west.

In scheduling the system, flight evaluation is keyed to the profitability of the flight as a whole, since the traffic flows are made up of a series of individual markets. Thus, a flight serving the Pittsburgh-Philadelphia market may well serve four, five or six other city-pairs, e.g., a flight from Providence to Hartford, Philadelphia, Pittsburgh and Columbus, would serve 10 individual city-pairs. The ability of the flight to be scheduled, however, frequently is dependent on the load factor on the critical segment between Philadelphia and Pittsburgh.

Exhibit 2 reflects a profile of the traffic over the Pittsburgh-Philadelphia segment. Of the 47,391 passengers carried over the segment in July 1974, 33,736 or 71 percent were local Philadelphia-Pittsburgh on and off, and the remaining 29 percent were through passengers. This 263 mile segment, which is also served by TWA, received 29 daily flights by Allegheny in July, 1974 at an average load factor of 60 percent over the segment. It is conceivable that if restrictions were eliminated on entry, this segment could be attractive to a person investing in a small fleet of jet aircraft, perhaps two or three units to get into business, slash the price, and attempt to drive Allegheny and TWA out of the market. Allegheny and TWA would then have to choose between meeting the competition by a combination of price and/or service adjustments.

Exhibit 3 reflects a similar profile of traffic over the Chicago-Pittsburgh segment. In this case, over 50 percent of Allegheny's passengers come from other than the local market.

Without question the availability of reasonable, frequent air service between many other points which are served on a single-carrier or single-plane basis because of Allegheny's ability to schedule frequently over this segment, would be destroyed. The benefits to local travelers between Philadelphia and Pittsburgh are questionable when viewed against the disservice to the large volume of travelers which are dependent on this segment to support their services. This subcommittee should pause and reflect before imposing a solution in an effort to lower prices for some consumers which will in effect destroy the system or tend to increase the prices paid by others.

It is conceivable that a few large concentrations of traffic in this country would benefit by freedom of entry. I have no doubt that long-haul transcontinental markets such as Los Angeles and San Francisco to New York, or perhaps a few of the Chicago markets could conceivably benefit by open entry and a rate war

between competing carriers. But I do not think we need expose the system to competitive destruction in order to achieve some of the results which are desirable.

We should all be wondering whether under a freedom of entry concept certain large trunk airlines would find markets of other carriers sufficiently inviting to warrant a raid.

And we should ask ourselves what the "domino" effect would be. Carriers forced to withdraw from their markets would look for other places to fly the aircraft in which they have invested. There is obviously no answer to this Pandora's box.

We urge the subcommittee to take note of the fact that a major reason for the recent increased demand for low cost air service in the domestic air travel market has come about because of decisions by the Federal courts which forced the CAB to review the legality of the youth and family plan fares.¹ These decisions ultimately led to a finding by the CAB that youth fares and family plan fares were unlawful under the present statute. Allegheny opposed that decision and believed the CAB could have found such fares lawful, but the CAB found otherwise.

A significant reduction in the cost of air travel can be made by the reinstatement of youth and family plan fares under guidelines which would ensure their being economically viable. This may require legislation by the Congress to permit the airlines to offer these reduced rate services. Hearings on the Low Cost Air Transportation, S. 421, introduced by Senators Cannon and Kennedy, will provide a forum for reviewing this subject. It will also provide an opportunity to consider offering reduced rate travel to our senior citizens. Allegheny supports these objectives.

A major burden on the traveler is being imposed due to the tremendous increase in the cost of jet fuel. Allegheny's projected 1975 fuel costs per gallon are approximately 110 percent higher than 1973 levels. Fuel accounts for 14 percent of our operating expenses. With the magnitude of increases now being experienced, there is no way to maintain the price of air travel at a lower level by adding more airlines. The answer is for the federal government to control the price which is paid for the fuel. As a matter of fact, we see a rather serious incompatibility between the government's fuel conservation effort and the push for freedom of entry and exit in public transportation by air.

We also understand that you will be considering other possible ratemaking policy matters later in this hearing which could increase the ability of scheduled carriers to adjust fares to meet market demand.

Improved efficiency at Federal, State and local governmental levels in the operation of the ground portion of the air transport system could be a direct contributor to reducing the price of air travel. Airport maintenance and operating costs as well as capital plant costs have risen rapidly as a result of inflation and environmental impact problems. The airlines are expected to support these increased costs through their use fees. Additionally, airport operating delays continue as a result of still-to-be-achieved efficiency in the air traffic control system and this directly impacts airline operating costs.

Obviously, there are things the airlines themselves must do to control the cost of air travel. We must reexamine the technological side of our business to avoid premature obsolescence. While unit cost improvement which came about through the jet development obviously has been a tremendous boon to the country, future development must proceed on the theory of improving the productivity of the aircraft without necessarily increasing the size of the machine.

If the Congress adopts a program which looks toward allowing freedom of entry, the airlines will be faced with the impairment of the stability of its invested capital and the ability to raise long-term funds to permit orderly growth. Such financial instability would be totally inconsistent with the funding of our air transport system by private capital. While those who advocate freedom of entry are hoping for more free enterprise, more competition and lower prices, the fruit of this effort could well be a system of nationalized air transportation funded by the Government for which the country would pay an enormous price. The Congress should be extremely concerned that this constant searching for a lower priced product may have an extremely adverse impact on the ability of

¹ *Transcontinental Bus System, Inc. v. C.A.B.*, 383 F.2d 466, 5th Cir., 1967 (youth fares); *Trailways of New England, Inc., et al. v. C.A.B.*, 412 F.2d 926, 1st Cir., 1969 (family fares).

the industry to plan its growth on an orderly basis and to be funded at reasonable costs. One of Allegheny's large expenses is for interest on the debt which is required to finance modern equipment. Last year's interest expense exceeded \$12 million. I would think that the degree of risk in a system which required airlines to fend for themselves with no security of profitable route services would create a tremendous cost burden on the system.

With regard to artificial restraint of competition by means of the capacity agreements which have been entered into by some carriers, we understand the motivation which has led to approval of these agreements. However, Allegheny has opposed this philosophy since it was first considered by the CAB. We think it is a proper matter for legislative review.

In summary, we at Allegheny do not believe that freedom of entry is really the issue. There are numerous certificated airlines available to do the job, particularly the local service airlines and smaller trunks. We are willing to invest money to expand service, and at reasonable prices. Since the late sixties, as a result of the CAB's route policy which permitted the local service industry to expand, the CAB has created, in effect, eight regional trunklines who effectively compete in many markets with the large carriers.

While urging that the Congress not disturb the sections of the Act dealing with route entry and exit, we do so in full recognition that there are some things which do need attention, and in which Congressional interest can be beneficial. One deals with the vexing problem of the so-called "route moratorium" which the CAB imposed by indirection commencing in 1970 and 1971.

The downturn in the economy which occurred at that time was properly recognized by the CAB as requiring a slowdown in awarding new route authority. To the extent there have been excessive route awards in recent years, they have been in certain long-haul situations, such as the proliferation of carriers in the Hawaiian market. But at the other end of the spectrum there remain many short and medium haul markets under 700 miles where monopoly has been permitted to remain even where service has declined to inadequate levels.

This is not the proper forum for arguing cases which are in the CAB's hands. But I would like to give the subcommittee some examples of the type of situation we are concerned about. In December 1971 Allegheny filed an application under the CAB's subpart M rule for removal of a restriction which prevented nonstop flights by Allegheny between Louisville and Memphis—an American Airlines monopoly where service has declined to once or twice a day. American objected to our entry. The Board has been silent since 1971 on the application.

Since 1972, the Board has denied a hearing on three other Allegheny applications to remove restrictions which prevent Allegheny from competing on an equal basis with American in monopoly situations: Cleveland-Cincinnati, Cleveland-Louisville, and Cleveland-Rochester. Yet these cities look to Allegheny for relief from American's inadequate service. And in two of the markets—Cleveland-Cincinnati and Cincinnati-Washington—TWA sits on dormant rights which it is free to exercise at any time, but neglects to do.

There are other examples of this type of situation which require a shift in CAB policy for correction. Trunklines should not be permitted to sit on dormant grandfather rights which another carrier could use to the benefit of the public as well as itself.

The correction lies not in a change in the law, but perhaps in more regular oversight hearings by the appropriate committees of Congress. We have today a great flexibility in the statute for changing the route structure by new route awards under the broad umbrella of public convenience and necessity, as well as through mergers, suspensions and route transfers. Administration of the statute has varied according to the views of the members of the Board. But that seems to reflect the intent of Congress that there be a 5-man commission reflecting a variety of points of view. The Congress wisely intended to leave a good deal of discretion in this commission. But the Congress did intend that the commission exercise the discretion in a way in which the public could challenge through the administrative process, and the courts if need be.

As I understand the recently released route study of the CAB's Bureau of Operating Rights, the Board is considering new rules which will deal with the grant of hearing priorities. In addition, the Board is considering new standards which will deal with grant of applications. Allegheny does not necessarily subscribe to the standards and guidelines which are being suggested and we will file our comments in due course.

It appears to us, therefore, that while the CAB has been less than responsive in the past few years in certain areas related to service deficiencies, it is moving to correct the situation by appropriate proposed rulemaking. We believe the Congress should urge the Board to utilize existing statutory authority to grant competitive authorizations in the many monopoly markets which can support service by two carriers. In this way the CAB would be providing an opportunity for a new carrier to improve the service by adequate scheduling, which is a more urgent need in many market pairs than a need for cutrate service.

In conclusion, we believe that if the Congress were to express its opinions with regard to the various matters which are under consideration on a more frequent basis, and were to utilize its oversight authority more directly, many of the problems which have surfaced in the last few years would be dissipated within a reasonable period of time, and without tremendous distortion of the system. Certainly there is no need to disrupt well-established means of providing service to the great multitude of markets in this country in order to permit unrestrained competitive influences in a handful of markets which could conceivably benefit from open entry.

50% OF ALLEGHENY'S PASSENGERS ARE GENERATED
IN ONLY 11% OF THE CITY PAIRS IT SERVES

	<u>October 1974</u>
Allegheny's On Flight O-D Passengers In Its Top 39 Markets	481,016
Allegheny's Total On Flight O-D Passengers	963,906
Allegheny's Total Or Flight O-D Markets	369
Passengers In Allegheny's Top 39 On Flight O-D Markets As a Percent Of Total Allegheny System Passengers	49.9%
Allegheny's Top 39 Markets As A Percent Of Its Total On Flight O-D Markets	10.6%

Source: Company Records

Exhibit 2

29% OF ALLEGHENY'S PASSENGERS ON ITS
PITTSBURGH-PHILADELPHIA NONSTOP FLIGHTS COME FROM OTHER
THAN THE LOCAL MARKET

(Pittsburgh-Philadelphia Nonstop Flights - Month Of
July, 1974)

<u>Market*</u>	<u>Segment Passengers</u>			Percent Of Segment Passengers In
	<u>Local</u>	<u>Beyond</u>	<u>Total</u>	<u>Beyond Markets</u>
<u>Local Market</u>				
Pittsburgh-Philadelphia	33,736			
<u>Beyond Markets</u>				
Pittsburgh-Albany		1,961		
-Boston		2,232		
-Hartford/Springfield		265		
-Providence		234		
Philadelphia-Columbus		1,446		
-Dayton		894		
-Erie		626		
-Indianapolis		796		
-Louisville		2,990		
-Memphis		176		
-Nashville		41		
-St. Louis		412		
<u>Other Markets</u>				
(Beyond Both Philadelphia And Pittsburgh)		1,582		
Total	33,736	13,655	47,391	28.8%

*Those markets served on a single-plane basis by flights operating nonstop over the Philadelphia-Pittsburgh segment.

SOURCE: Company Records.

Exhibit 3

MORE THAN HALF (51%) OF ALLEGHENY'S PASSENGERS ON
ITS CHICAGO-PITTSBURGH NONSTOP FLIGHTS COME FROM OTHER THAN
THE LOCAL MARKET

(Chicago-Pittsburgh Nonstop Flights - Month of July, 1974)

Market*	Segment Passengers			Percent Of Segment Passengers In Beyond Markets
	Local	Beyond	Total	
<u>Local Market</u>				
Chicago-Pittsburgh	14,023			
<u>Beyond Markets</u>				
Chicago-Harrisburg/York		8,094		
-Wilkes Barre/Scranton		5,115		
-Allentown/Bethlehem/Easton		1,014		
-Other		305		
Total	14,023	14,528	28,551	50.9%

*Those markets served on a single-plane basis by flights operating nonstop over the Chicago-Pittsburgh segment.

Source: Company Records

BIOGRAPHY OF EDWIN I. COLODNY, EXECUTIVE VICE PRESIDENT, MARKETING AND
LEGAL AFFAIRS, ALLEGHENY AIRLINES

Edwin I. Colodny joined Allegheny in 1957 as assistant to the president and later served as company secretary, vice president-legal affairs and economic research, senior vice president of the same division, and executive vice president-legal affairs and marketing services, prior to assuming his present responsibilities in 1973.

Colodny was formerly affiliated with the Office of General Counsel, General Services Administration; Office of the Judge Advocate General, while a First Lieutenant in the U.S. Army; and the Civil Aeronautics Board as a trial attorney, Bureau of Air Operations.

Active in industry affairs, Colodny serves as chairman of the route policy committee of the Association of Local Transport Airlines and on several Air Transport Association committees.

He is a native of Burlington, Vt., and received his A.B. degree in 1948 from the University of Rochester. He earned his LL. B. from Harvard Law School in 1951.

PREPARED STATEMENT OF ANDREW DE VOURSNEY

THE ISSUE OF CONTROLLED ENTRY

United Air Lines welcomes this opportunity to contribute its views to the subcommittee's inquiry into the economic regulation of the airline industry. As the nation's largest airline serving 92 airports with over 1,400 daily flight departures, employing some 49,000 persons, consuming nearly 1.5 billion gallons of jet fuel per year, carrying over 31 million passengers on both scheduled and charter service last year, and responsible for the productive use of \$3.5 billion in fixed assets financed by lenders, lessors and our 52,000 shareholders, United has an enormous commitment to the nation's air transport needs and a very large stake in the economic regulation of our industry.

At the outset we think that any system bears reexamination, including the current inquiry into economic regulation. In this regard, we supported the creation of a national commission on regulatory reform. We also recognize that there are areas in which less regulation would be both helpful and desirable. These should be carefully explored on a step-by-step basis.

At the same time, we wish to emphasize that the issues addressed by the subcommittee, especially the issue of regulation of entry and exit, should not be treated merely as academic issues in a purely theoretical context. We cannot turn back the calendar to 1938 in order to speculate on how the airline industry might operate today had we chosen differently in writing the original Act which has governed our economic regulation in the past 37 years.

ACHIEVEMENTS OF THE EXISTING U.S. DOMESTIC SYSTEM OF REGULATION

We must look to the present and to the future, recognizing the billions of dollars of investment already in place and the hundreds of thousands of persons whose livelihood is dependent on the existing airline system which today provides the best air transportation service in the world—by any standard of measurement one may choose. Above all we must look at the national interest served by the air transport industry—the primary mode of intercity common carrier passenger travel.

Consider the following major economic characteristics of our existing system:

1. All parts of the nation (over 500 airports) receive convenient, safe, and reliable scheduled air service. Equipment maintenance standards are high; flights generally operate on time, except for severe weather problems; complicated itineraries are handled routinely, and airline passengers expect and usually receive friendly, courteous attention from airline employees.

2. Airline fares and rates for scheduled passenger and cargo service, have tended to rise much less than other prices over the long run, although they have had to be increased significantly in the past year to offset the rapid rise in fuel and labor costs. The average domestic fare per mile flown rose 23 percent from 1964 to 1974 while the consumer price index rose 59 percent. During this same period, per capita disposable personal income rose 102 percent and ability to purchase air travel increased significantly. Furthermore, domestic air fares in the U.S. are significantly lower than fares for service in other parts of the world.

For example, the coach fare from London to Rome, a distance of 892 miles is \$178.10. A comparable trip in the U.S. from Chicago to Denver costs only \$85.00 for a 900-mile trip. Other examples include: Bangkok-Singapore (897 miles)—\$125; Beirut-Teheran (908 miles)—\$128; and Buenos Aires-São Paulo (1052 miles)—\$108.

3. The direct subsidy cost to the taxpayer is quite modest—under \$70 million a year, and confined to eight regional airlines and three Alaskan carriers. These payments insure that many small or remote communities are connected to the national airline network. This airline subsidy is only about 20 percent of the \$350 million federal subsidy proposed for Amtrak rail passenger service in the coming fiscal year. The emergency aid to the Penn Central may also approximate \$350 million, while the maritime operating and construction subsidy will be \$500 million per year.

4. The existing system retains an opportunity for individual small entrepreneurs to enter the air transportation business as air taxi operators and third-level commuter airlines which fill the role of broadening the scope of smaller city services available to air travelers. One such airline, Air New England, recently "graduated" to the status of a fully certificated carrier.

5. Alongside regular scheduled services, specialized services have grown up for the price sensitive pleasure traveler who doesn't want all of the service features designed into the basic system and can thus take advantage of the economies possible in group or charter travel. United is the largest domestic charter operator with 53 percent of domestic charter traffic. United has consistently encouraged the development of this market segment, including liberalizing of charter regulations to make charter service even more widely available. Specifically, United is on record in support of the CAB's recent efforts to liberalize travel group charter rules and establish special event charters and one-stop inclusive charters. United also favors a one-year extension of affinity charters, less restrictive travel limitations and payment of commissions to travel agents for sales of the new form of charters under consideration.

THE FUTURE AIRLINE ENVIRONMENT

In considering regulatory reform, we must evaluate the changed economic environment in order to determine what changes are needed. United's planning for the next 5 years recognizes a number of changing conditions which will affect our operations and services. Briefly, these are as follows:

1. The economy will continue to experience a higher level of inflation than in most of the postwar era, while also suffering greater unemployment and slower economic growth. The inevitable consequence for the airline industry will be relatively slow growth of demand for air travel. In 1974, scheduled air travel rose only 2.4 percent, in good part because of diversion of auto travel to airlines during the gasoline shortage. We now expect a decline in traffic in 1975 and modest growth of some 5 to 6 percent per year in the 1976-1980 period.

2. Although the control mechanisms to be used are not yet designed, we are certain that energy conservation will be a dominant factor in airline planning for at least the next five years. A variety of steps have already been taken by the airlines to conserve fuel; for example, United's 1974 fuel consumption was 11 percent less than in 1972 and 13 percent less than in 1973. We expect to continue our fuel conservation program both by operational procedures and by restraint in adding scheduled flights.

3. Several major hub airports and sectors of the airways system are so near to their practical capacity as to constitute significant constraints on future airline growth. They include the New York, Chicago, Washington and Atlanta terminal areas. The costs of new airports and facilities are so high that utmost caution must be used in planning and making financial commitments to construction programs. We must be certain that we avoid the costly waste of prematurely expanding the system before we are fully utilizing the capacity of the existing airport-airway system.

4. Finally, United's planning reflects the need for maximizing operational efficiency which is so necessary if we are both to hold down the level of airline prices and to continue to provide an adequate level of service despite constraints on fuel availability and airport capacity. Specifically, we anticipate a need to increase use of larger airplanes, to increase seating capacity of all airplanes, to increase average daily hours of use of airplanes, and to increase the load factor, or seat occupancy percentage. These changes will directly benefit the public by

providing a continued high standard of service at lower prices than would otherwise be possible. It will be extremely difficult to accomplish such changes in the existing competitive environment without the active leadership and support of government. Stimulating a flood of new capacity by relaxing regulation of entry could make these productivity gains impossible to achieve.

PROBABLE CONSEQUENCES OF DEREGULATION

It is recognized that air transportation is not a so-called "natural monopoly" which requires economic regulation in the sense of a monopoly public power utility. Air transportation initially was placed under regulation to insure that air service would be provided which was adequate to meet the needs of a modern economy and to be certain that all sections of the nation would receive the benefits of air service. It also was important to prevent destructive competition among the carriers, a consideration amply supported by history. Such destructive competition would pose problems in the areas of safety, public convenience, financial stability and continuity of service. The Federal Aviation Act specifically directs the CAB to consider "as being in the public interest * * * the encouragement and development of an air-transportation system properly adapted to the present and future needs of the foreign and domestic commerce of the United States, of the Postal Service, and of the national defense" * * * and "competition to the extent necessary" to assure such a system.

There are now numerous proposals to scrap this system and permit free entry and exit into and out of the industry. It is alleged that the increased competition which would result would lead to a more efficient system with lower fares and rates for travelers and shippers. It is assumed that pricing freedom would necessarily accompany freedom of entry and exit.

In examining the question of regulation we should try to foresee what would actually occur if deregulation were to take place. It is difficult to do since there is no nation in the world which has an unregulated domestic public transport system. Indeed, the prevailing pattern is for outright nationalization, partial public ownership, or much more restricted competition than exists in the U.S. However, a generalized projection of the results of deregulation can be made.

In our view the first development would be greater concentration of service and intensified competition in large, high-density markets. Existing airlines and operators would seek to gain positions in the largest markets; many would be tempted to offer service at prices below cost in order to obtain a foothold in these markets. Initially, frequency of service would increase and fares might be lower—but carrier profits surely would vanish.

We can draw a parallel between freedom of entry and the history which surrounds the transpacific route case. Prior to the final decision in this route case in the summer of 1969, three scheduled carriers had served the route between the Mainland and Hawaii. They had provided high quality service at very low fares. United's average coach rate per mile between the West Coast and Hawaii in 1968 was 3.8 cents; the lowest promotional fare was 2.2 cents per mile. United's operating profits were reasonable, aggregating \$24.9 million on revenues of \$121.3 million. Following the award and the initiation of new competing services, United's profit history is as follows:

1969—still a profit of \$25.6 million.

1970—loss of \$6.7 million.

1971—a very substantial loss of \$18.0 million.

1972—continued loss—\$14.6 million.

1973—a profit of \$13.3 million on revenues of \$159.4 million.

Results for 1974 are not yet available. In the transpacific case, we have a very good preview of what would happen if freedom of entry were permitted.

A second immediate effect would be the neglect or abandonment of economically marginal routes: smaller cities, low traffic density sectors, etc. If subsidies to regional carriers were abandoned along with freedom of entry, many communities would risk immediate loss of service, or at least a major downgrading of quality of service. To retain service, some new system would need to be devised such as the contract concept advanced by former CAB chairman Secor Browne. But it would have to be in place immediately to prevent abandonment of the small communities. It is questionable whether such a system is better or more economical than that we now have. Airport-airway congestion problems would be severely impacted by deregulation. Increased competition in major markets would take

the form of higher frequency of scheduled flights, using smaller less fuel efficient and less economic airplanes crowded into periods of peak demand. Until additional airports could be built to handle the increased frequency of schedules, local allocation systems would be needed to ration the limited number of landing and takeoff times. Such allocation programs are in use today at O'Hare, La Guardia, Kennedy and Washington National airports with overall ceilings on the number of operations per hour. A proliferation of new carriers and new gate and airway demands would greatly expand the rationing process and place life or death regulatory power in the hands of local airport authorities. The construction of new and very costly duplicate airports to serve major hubs would be needed to handle the added flights. The resulting economic waste would eventually lead to higher fares, since passengers ultimately must pay for the expensive new facilities and the wasteful, excessive flight schedules.

Indeed, there is no certainty that costs could be reduced or average fares lowered significantly even in the short run. Existing airlines have high fixed costs: airplanes, computer systems, terminals, maintenance facilities, training centers, and heavily unionized work forces with restrictive work rules. It is conceivable that new operators could enter the business with lower fares based on use of older aircraft and nonunion employees earning lower salaries and with greater flexibility in work assignments. Assuming some could gain access to major markets and survive, it is reasonable to expect that they would soon become unionized and would move to upgrade equipment. For example, PSA has followed this path of unionization and acquisition of larger equipment; it is vigorously trying to raise the level of California intrastate fares to offset rapidly rising costs. The intrastate economy fare between Los Angeles and San Francisco has risen 21.7 percent since 1969 and PSA has a pending application for a further 13 percent increase.

Meanwhile, the present carriers either would have to meet the fares of cutrate operators at a loss or pullback service and abandon the market. The public would lose long established services and airline employees their jobs.

The matter of safety standards cannot be treated lightly. Despite some recent criticism, the scheduled airline industry has a genuine dedication to safety which transcends economic concerns. Safety is a prerequisite to lasting commercial success. Frankly, the experience of other, less regulated sectors of aviation does not provide much comfort as to the possible safety consequences of deregulation. A recent study of 1974 worldwide accident rates indicates that the accident rate per departure for the largely unregulated nonscheduled airlines was seven times the rate for scheduled carriers. Historically, both scheduled and supplemental U.S. airlines have enjoyed superior safety records compared with the rest of the world. History teaches us that marginal, or cutrate, operators may be tempted to cut corners on safety when under economic pressure.

The nature of the air transportation industry which would finally evolve from deregulation is highly uncertain. However, it is clear that the certain short run result would be a protracted period of great instability. Weak carriers would fail or be forced to shrink the scope of their operations. Many airline workers would lose their jobs. Many mature U.S. industries are dominated by a few firms; this could well be the long run pattern for a deregulated airline industry.

Under these circumstances, economic regulation probably would not disappear. Rather than being centralized under the CAB, it would pass into other hands. For example, there would be de facto regulation by airport operators through the allocation of airport gates, leases and landing rights. The FAA would allocate available airspace. Under today's conditions, FEA would be establishing policy through allocation of scarce fuel supplies. Finally, the Antitrust Division of the Department of Justice would be concerned with increased concentration of economic power which might result. We could evolve into a system of regulation by litigation.

PROBLEMS UNDER DEREGULATION

The lack of central regulation and resulting instability would have a number of unfavorable consequences. These problems would require an enormous effort to replace existing efficient systems which have produced the industry we have today with new methods applicable to a changed environment.

Of paramount importance would be the future of the highly efficient business systems created by the regulated airline industry under CAB authority. All elements of transacting airline business: reservations, ticketing, connecting service, and baggage handling, would be affected by deregulation. What would happen to tariffs and the tariff system? The potential for price discrimination, now illegal,

would be introduced. With constantly changing prices, great variation among carriers, price deals, and possibly no tariffs—what would happen to the thousands of independent travel agents who now sell nearly half of U.S. air travel? How could they construct a client's itinerary in advance with any confidence? How could they quote fares with confidence? Could these small entrepreneurs survive or would they be overwhelmed by larger firms with many branches who could create close ties with individual carriers in the absence of restrictive regulation.

Frequent flyers place great importance on the convenience and efficiency offered by the existing system. The ability to write a ticket to any location on earth, to check baggage through the final destination, to change complex plans with a single telephone call is essential and would need to be retained somehow under a deregulated system. Under a situation of considerable carrier turnover, this could be difficult.

We believe the subcommittee is aware that through the air traffic conference, a subsidiary organization of the Air Transport Association created to coordinate the complex elements of travel arrangements by cooperative action of the carriers, the domestic airlines have entered into hundreds of technical agreements on trade practices which are filed with the CAB covering such diverse subjects as tariff filing, tariff enforcement, interline connecting times, timetable publication, interline ticketing, carriage of physically handicapped persons, standardized public address announcements, educational familiarization programs for travel agents, tax collection, control of ticket stock, baggage handling and tracing, reservations procedures, travel agency agreements, and computer applications.

The same requirement for efficient coordination applies to the postal service and air freight shippers. At this time it is inconceivable that international air service could be deregulated; the complex interface of domestic and international services would need to be preserved. By its very nature, the airline industry requires a high degree of cooperation among its participants; such cooperation would appear to require some degree of regulatory supervision and support.

Aside from these operational efficiency problems, a deregulated system would impose severe difficulties in planning for those activities and resources with long lead times. The stability and continuity of the existing system provides a reasonably reliable basis for forecasting future needs for airports and other facilities with long planning lead times and high-capital costs. Airline staffs now play an important role in forecasting volume data for this planning effort and airlines provide guarantees for the financing of many airport improvements. With an uncertain environment, could forecasts be made with any confidence and would such guarantees be feasible?

Similar planning difficulties would affect the aircraft and engine manufacturers. Most major new technological developments and new aircraft models have been launched with the support of substantial purchase commitments by the major airlines. Today United is working closely with Boeing and United Aircraft in the design specifications of a new version of the highly successful 727 jet, the dash 300, which promises greater fuel efficiency and quieter operations—both clearly in the interest of airline passengers and communities. Who could afford the sort of long range study effort and massive capital commitment associated with this sort of activity if the air transportation industry is placed in a highly uncertain transitional posture by deregulation? Would aerospace manufacturers invest in R&D efforts to sell to a fragmented and unstable market?

The possibility of the development of capacity shortages under a policy of freedom of entry and exit also is significant. The Federal Aviation Act provides for an adequate supply of air service regardless of economic conditions. If carriers were unwilling or unable to make lasting service commitments, vital services could disappear during recessions and return very slowly during recovery. Serious service imbalances could occur at times. If a carrier were to fail for any reason, communities would face serious service disruptions and potential economic hardships from which they now are protected.

The problems of uncertainty and instability raise the difficult question of how the industry would be able to finance future growth. Would it be forced to rely on banks and other financial institutions to acquire the bulk of airline equipment and bear associated financial risks, and then lease aircraft to airline operators? Perhaps, this solution would be feasible; however, it raises questions in a very sensitive area concerning the proper role of such financial entities in the control of other businesses, particularly one so vested with public interest considerations.

In summary, we foresee many risks and new problems resulting from any abrupt deregulation of the airline industry. We ask the subcommittee to place these considerations on the other side of the scale to compare them with any prospective benefits which might be gained. If we take into account the indisputable fact that our present system is superior to any existing alternative system, is it in the public interest to abolish regulation of entry and exit for the uncertain promise of lower fares? Might we develop a new system which would not only be ineffective in improving the domestic airline system but which, through developments which cannot be clearly foreseen, could cause a deterioration in that system?

BUREAU OF OPERATING RIGHTS ROUTE POLICY STUDY

In addition to a general discussion of freedom of entry, the subcommittee has requested United's views on two specific matters: the CAB Bureau of Operating Right's study of domestic route policy, and the Board's policy of restraint in route matters which has been followed in recent years. With respect to the former, United is now in the process of preparing its formal response to the CAB which will be submitted by March 1, 1975. Copies of our response will be furnished to the subcommittee. As a matter of principle, United supports the concept of guidelines governing route proceedings analogous to the guidelines recently established in the domestic passenger fare investigation. We also believe it advisable from a policy viewpoint to establish some type of public forum to permit complete, open discussion of the issues associated with such standards. Several precedents exist for public hearings on major policy considerations including fact-finding hearings related to the desirability of establishing local service airlines and the preliminary investigation of large irregular air carriers. We believe it will not be necessary to have a prolonged litigated proceeding but we believe something broader than normal rulemaking is needed to explore adequately the policy issues. We commend the CAB for starting the process by making the study and we expect it will proceed expeditiously.

CAB POLICY OF RESTRAINT

Regarding the CAB's policy of route restraint, it is clear that the Board has been acting in the best interest of both the public and the carriers. In its treatment of individual cases, the Board openly stated its views on the need for restraint and pointed to a variety of reasons related to the economic health of the industry and the uncertain national economic outlook. To our knowledge, this policy has never been formally challenged as a policy. While questions have been raised with respect to specific cases in question, subsequent economic developments certainly have confirmed the wisdom of this policy from an economic standpoint. Absent this policy, either the carriers would suffer staggering losses resulting from the intrusion of new carriers, or fare levels would have to increase substantially.

UNITED'S PROPOSALS FOR IMPROVEMENT OF REGULATION

We recognize the system is not perfect. But we suggest that we seek means by which the quality of regulation under the CAB may be improved rather than scrapping the entire system. United favors evolutionary changes and reforms to achieve the goals set forth in the original Act in 1938. We believe, for example, that the airlines need more freedom within the boundaries of the regulated system to exercise their business judgment. A case in point is the recent establishment of a mileage limitation on the bicentennial fare; we feel that this is a case where the CAB substituted its business judgment for our own, and we favored no limit on the applicability of the fare in order to provide maximum benefit to the traveling public.

For many years we have felt that the public deserves a higher quality of professionalism on the part of government regulators. Is it possible to devise a set of objective standards for membership on regulatory commissions? Could the Senate expand the "advise" portion of its "advise and consent" responsibilities?

In response to question 39 of the subcommittee's questionnaire we suggested some procedural improvements which United believes should be implemented. Briefly, these were as follows:

1. Reduce the size and scope of information requests from bureaus of CAB in formal proceedings. Preparation of responses is burdensome and time-consuming.

2. Reduce the length of hearings by cutting down on excessively detailed cross-examination.

3. Provide greater time for filing responses to applications, petitions, motions, etc. Time now available is ordinarily inadequate to permit reasonable evaluation of issues and preparation of answers. The CAB is thus deprived of the best possible arguments and evidence.

4. Expedite the hearing process and try to avoid hearings where possible without prejudice to parties' rights to due process.

5. Change the tariff filing procedure by statute to require 45-day notice and CAB action within 30 days to provide 15 days for orderly implementation.

United also is supporting a number of significant changes related to the regulation of charter service which will expand the potential benefits to the public without impairing the quality of scheduled service. United strongly believes that charter service should be encouraged to serve that segment of the market whose requirements are different from scheduled service—and thus to offer safe, reliable service to the public at the lowest possible cost. However, we do not believe the proper path to this goal is the legislative one. CAB regulation now permits experimentation to test the feasibility of new concepts such as more liberal one-stop inclusive tour charters without the inflexibility involved if such changes were legislated. That freedom should be used before the rigidities of a legislative concept are imposed.

In conclusion, we wish to reemphasize United's vital interest in the proceedings of this subcommittee as well as other investigations of a similar vein. We also wish to stress our willingness to cooperate in bringing about changes which will produce genuine public benefits; our record is clear in this regard. United is not an implacable defender of the status quo. However, we believe it would be unwise to endanger the quality of an excellent system in the pursuit of hypothetical gains which may be unattainable in actual practice. The overall record of the airlines under CAB regulation is one of which the country can be proud. It represents a solid base for future improvement of the system. It should not be discarded without a great deal of careful weighing of the potential benefits against the apparent risks.

UNITED AIR LINES,
Chicago, Ill., Feb. 28, 1975.

Hon. EDWARD M. KENNEDY,
U.S. Senate,
Washington, D.C.

DEAR SENATOR: During my testimony on February 18, we discussed the subject of internal cross-subsidization of unprofitable routes. I indicated that we would provide additional information on the scope of such subsidization which existed on United's route system in 1974—a year of relatively good earnings for the company. We have compiled the information below from internal company records using planning standard cost rates and average revenue rates, which closely approximate actual results.

All regular scheduled passenger operations of the company have been separated into two categories: those airport pairs on which we failed to earn a profit before federal income tax, and those on which we did earn a pretax profit. This analysis compiled the results for all nonstop flights between a given pair of airports, in both directions, to determine the profitability category: some of the individual flights serving an airport pair might be unprofitable even though the total of all flights was profitable, and vice versa. Similarly, some airport pairs are unprofitable in certain months of the year and profitable in others. The breakdown shown below reflects full year results of the sum of all flights operated in a given market.

1974 RESULTS OF SCHEDULED PASSENGER OPERATIONS

	Unprofitable city-pairs	Profitable city-pairs	System total
Number of airport pairs.....	163	164	327
Revenue (in millions).....	\$462.7	\$1,556.9	\$2,019.6
Expense (in millions).....	\$604.7	\$1,226.0	\$819.7
Profit before tax (loss).....	(\$142.0)	\$330.9	\$188.9
On-board passengers (in millions).....	13.8	20.0	33.8

Each of the 20 million passengers in the profitable markets provided an internal subsidy of \$7.10 to offset the \$142 million loss on the unprofitable routes. This is equivalent to approximately 9 percent of the average revenue per passenger on the profitable routes. In order for the unprofitable routes to reach the break-even level, a revenue increase of 30.7 percent would be necessary. A fare increase of this magnitude would almost certainly depress the level of traffic in those markets. The existence of a substantial level of internal cross-subsidization clearly and directly benefits approximately half of the markets served by United.

Further analysis revealed that 75 of the 163 unprofitable airport pairs involving 3.2 million passengers failed to produce sufficient revenue to cover their direct variable cash costs. These markets consist largely of short haul feeding or connecting segments which provide important support for the longer haul flights but are not credited with this support revenue by the accounting system. However, if these segments were not an integral part of a larger system, they would probably receive little or no scheduled airline service since the purely local traffic demand is too small to support such service.

I hope this simple analysis helps shed added light on the subject of internal cross-subsidization of unprofitable route segments. We recognize that implementation of phase 9 of the CAB domestic passenger fare investigation decision will help alleviate this situation but will not end it.

We would be pleased to cooperate further with the subcommittee on this vital subject which is of great interest to the management, employees and shareholders of UAL, Inc., as well as to the public.

Sincerely,

ANDREW M. DE VOURSNEY,
Group Vice President of Finance and Planning.

[NOTE.—The following letter was submitted to the subcommittee by United Air Lines to update and/or replace the data submitted in the letter of February 28, 1975, as printed above.]

UNITED AIR LINES,
Chicago, Ill., Apr. 29, 1975.

MR. STEPHEN M. BREYER,
*Subcommittee on Administrative Practice and Procedure,
Washington, D.C.*

DEAR MR. BREYER: I am enclosing a detailed listing of our analysis of United's unprofitable routes in 1974 as we discussed by telephone. Section 1 covers 58 city-pairs on which revenue failed to cover incremental operating costs; this list corresponds to the 75 city-pair list with which you were working originally. The 17 markets which we excluded from our analysis were not scheduled on a year-round basis and, in most cases, received sparse or sporadic service. We believe it is more reasonable to look only at those markets which receive regular scheduled service for most or all of the year. Incidentally, three markets you included in your "retain service" category should be listed among those where service has been discontinued; these are Baltimore-Philadelphia, Birmingham-Knoxville, and Honolulu-Hilo.

Section II of the analysis covers those city pairs where revenue exceeded incremental costs but did not cover fully allocated costs. These markets are certainly those which would come under close scrutiny as to the wisdom of continuing service if exit were permitted, inasmuch as it would not appear economically justified to purchase replacement equipment on which an adequate return was not being earned. It is our working assumption that long run incremental costs (the theoretical basis for capital investment decisions) are equal to or greater than current fully allocated operating costs including overheads. Our internal cost studies indicate that overhead costs tend to vary in the long run in the same way as short run incremental costs.

Some technical definitions may assist you in interpreting the attached table.

Contribution—Total revenue less incremental cash costs (based on system average costs).

PBT (Profit Before Tax)—Total revenue less fully allocated costs including interest but excluding income taxes.

Retained for Traffic Control Purposes—City-pairs where feed traffic to other segments is significant but is not reflected in market profitability.

Retained to Combine Markets—City-pairs where aircraft are routed to combine two cities on a single flight but where local traffic is not significant.

Retained for Operational Routings—City-pairs where primary purpose of flights is equipment positioning.

Retained for Future Profit Potential (or Policy)—City-pairs which are judged to have good future profit potential but are current losses due to temporary problems or unusual circumstances; or, where the market is of such strategic significance that company policy dictates continued operation despite unsatisfactory economic results.

I am certain you understand that this classification exercise is a judgmental process and reflects a conscientious effort by United's scheduling experts but is by no means based on the sort of exhaustive economic studies which we would pursue in the event we were faced with an actual decision. I am satisfied that it also represents our unbiased opinion, not slanted for political impact. Because of the sensitive nature of these data, we are requesting that no details regarding specific city-pairs be released to the public.

In summary, the attached analysis is our approach to answering the question, "What United markets would not be served if you were free to abandon undesired routes?" We agree that in some cases, such as Atlanta-Birmingham, other carriers would continue service. In other instances, new carriers might replace United's service. This list is also not complete in the sense that we may find it desirable to withdraw service from some nominally profitable markets under a condition of free exit and entry. The statistical results are summarized as follows:

CLASSIFICATION OF LOSS MARKETS

[United Airlines, 1974]

	Number of city-pairs	Percent of market	Annual contribution (in thousands)	Profits (PBT) (in thousands)
Markets with negative contribution:				
Retained:				
Traffic control.....	10	17.2	(\$992)	(\$12,433)
Combine markets.....	7	12.1	(2,927)	(6,654)
Operational.....	4	6.9	(2,445)	(10,718)
	21	36.2	(6,364)	(29,805)
Consider for deletion.....	37	63.8	(8,096)	(25,172)
Subtotal.....	58	100.0	(14,460)	(54,977)
Markets with positive contribution:				
Retained:				
Traffic control.....	43	48.3	31,054	(26,495)
Future profit or policy.....	15	16.9	23,746	(14,216)
	58	65.2	54,800	(40,711)
Consider for deletion.....	31	34.8	12,672	(13,242)
Subtotal.....	89	100.0	67,472	(53,953)
Grand total:				
Retained.....	79	54.0	48,436	(70,516)
Considered for deletion.....	68	46.0	4,576	(38,414)
Total.....	147	100.0	53,012	(108,930)

We look forward to an opportunity to read your draft report and we hope we can continue to enjoy a mutually constructive relationship.

Sincerely,

WILLIAM R. NESBIT,
Corporate Economist.

PREPARED STATEMENT OF STUART G. TIPTON

I am Stuart G. Tipton, Pan Am senior vice president for Federal affairs. I am here today with Stanley Gewirtz, Pan Am special adviser on public policy, to tell you about some of our widely-publicized problems. But in the context, essentially, of the effectiveness of regulation, of route awards and the requirements of entry into the business of international air transportation.

At your hearing on February 6, you heard from some very thoughtful people. The representatives of the industry's trade association quite properly, and proudly, recited the progress which has characterized domestic commercial aviation in the 36 years since the passage of the Civil Aviation Act of 1938.

Some Government and some academic experts suggested that the progress could have been greater, and the growth more beneficial in the public interest, if the rules had been different and if, in fact, there were no rules governing entry and relaxed rules controlling rates.

There may be much wisdom in the recommendations made to you. But they relate to the domestic system. They are neither appropriate nor applicable to our U.S.-flag system. Few of the recommendations you have heard atypically embrace of our international flag system. You are concerned, and quite properly, with the efficacy of the practices and procedures of federal regulation of the airline industry. And whether they have been "designed and implemented (to provide) . . . the consumer with adequate service at reasonable prices." This is praiseworthy. Your contribution to air transport regulation would be enhanced were you to examine, also, whether those practices and procedures have been administered, over the last 36 years, to insure a healthy climate in which the U.S.-flag system could be sustained. And, indeed, to inquire whether the practices and procedures applicable to the domestic industry are equally appropriate to the totally different nature of international air transportation. Also, in that light, you should examine whether the nostrums advanced to save the domestic air transport system are not totally unsuited as solutions to the problems of Pan Am, a somewhat different U.S. airline whose operations constitute close to 50 percent of the U.S.-flag operation outside the United States and which performs less than 10 percent of its operations domestically—and all of those outside the U.S. mainland.

Since no one else yet has, let us look at the differences between the U.S. companies that operate air transportation services internationally and those who concentrate on domestic services.

At the outset, we'd like to explain what we propose to tell you and why we feel that to be necessary. The Federal Aviation Act requires the CAB to consider " * * * as being in the public interest, and in accordance with the public convenience and necessity: the encouragement and development of an air transportation system properly adapted to the present and future needs of the federal and domestic commerce of the United States, of the Postal Service, and of the national defense * * *." The statute also directs the Board to consider " * * * competition to the extent necessary to assure the sound development of an air transportation system * * *" also consonant with the trinity of requirements respecting the commerce, the Postal Service and the national defense of the United States. As a result of these statutory directives the same procedures and practices, and to a very great extent the same philosophic determinations, have been developed with respect to both domestic and foreign commerce. This is understandable as a matter of statutory interpretation. It was also understandable at the time the Act was written that the regulatory approach would treat similarly the basic economic determinants for certification whether it be in the domestic or the international field. However, we feel it important that we differentiate the two systems of air transportation. In addition to that, it seems useful to explore the structure of our systems generally, and of Pan Am more specifically. Pan Am is the principal U.S. international carrier and, as a carrier without mainland domestic routes, may suggest a pretty good example of the need for such differentiation.

We hasten to point out that the problems of Pan Am are related against this background and not for the purpose of complaining about our condition. After we have given you the facts and told you what we've attempted to remedy our problems, we feel you'll agree that management has done an effective job in the face of some very awesome challenges.

So, let's take a look, at the outset, at the two airline systems of the United States and wherein they inherently differ.

I. THE TWO AIRLINE SYSTEMS OF THE UNITED STATES

The United States has two airline systems, both essential to the country: the domestic system, which operates within the United States; the flag system, which operates beyond the borders of the 50 states.

Many U.S. airlines take part in both systems. The impression is thus sometimes given that the two systems are similar. They are not.

There are basic distinctions between the U.S.-flag system and the U.S. domestic system, and the two systems must be treated accordingly.

1. The Two Environments: U.S.-Domestic and U.S.-Flag

The domestic system operates in a single environment within the U.S. The flag system operates in each of the separate environments of the numerous countries which it serves. The multitude of political and economic environments in which the flag system operates, as compared with the single political and economic entity in which the domestic system functions, emphasizes the dissimilarity between the two systems.

The economic impact on the flag system of marketing a product in numerous foreign nation environments is dissimilar to the domestic system. The domestic system operates in a free market economy. The flag system, in most cases, operates in the world of cartels and pools and government-owned and subsidized corporations.

Labor laws are but another example of dissimilarity. The domestic system operates under a uniform set of U.S. government-regulated labor laws. The flag system is immersed in environments of numerous foreign nations, each with separate laws.

The divergence in economic environments in which the two systems operate is illustrated by airport/airway costs. The domestic system operates with a program administered and paid for through a single government controlled airport development air program fund supported by the consumer of airline services. The flag system supports airport/airways costs around the world by mandated user charges of the multiple nations which it serves and such costs are borne by the carrier. In 1974, these charges to Pan Am came to \$46 million.

There are many other obvious basic distinctions between the two systems in the areas of markets, competition, competitive opportunity, fares and rates, wage levels, cost of capital, and price control. They relate to the separate environments of the flag system and the domestic system and effect every element of their different operations.

2. Markets

The markets of the domestic system are protected against competition from foreign-flag airlines. The question of which airlines shall serve which geographic markets is determined by the Civil Aeronautics Board. The determination is made on the basis of public convenience and necessity.

The markets of the flag system are by definition subject to competition by foreign-flag airlines. The question of which airline shall serve which geographic markets is determined by international negotiation between governments. The determination is made on the basis of various national interests including, among others, prestige and political considerations and tourism.

3. Amount of Competition

The amount of competition within the domestic system is determined and controlled by the Civil Aeronautics Board. Decisions as to the amount of competition are based on concepts of what represents good service for the public and sound economics for the airlines.

The amount of competition faced by the flag system is decided by foreign governments as well as by the U.S. Government. Decisions are made on the basis of various national interests and political considerations.

A number of examples will illustrate this difference. The U.S. government decreed that only three carriers (Delta, Eastern and National) are needed between New York and the Miami area, and they carried 3 million passengers in 1972. Ten carriers competed for less than 1 million passengers in 1972 in the New York-London market. Our government apparently felt that only three carriers (American, TWA and United) were required to provide healthy competition and they served 1 million passengers between New York and Los Angeles in 1972. Eight airlines vied for the business of about half a million passengers in the New York-Paris market in 1972.

4. Competitive Opportunity

Within the domestic system the principle is that airlines shall have equality of competitive opportunity. Restrictions on competitive opportunity, when they exist, are intended to balance the interests of one airline fairly against another.

The flag system does not have equality of competitive opportunity with foreign-flag airlines. Foreign-flag airlines have the right of access to the U.S. market on equal terms with the U.S.-flag system. But the U.S.-flag system is severely discriminated against in foreign markets by foreign governments. This discrimination was a fundamental reason for the enactment of the International Air Transportation Fair Competitive Practices Act. (It is thoughtful legislation which can be effective only if properly and vigorously administered.)

5. Fares and Rates

For the domestic system, the level of fares and rates is set by the Civil Aeronautics Board, and action can be rapid when speed is required. The Board acts in accordance with the concept that the public interest requires that airlines receive a reasonable rate of return.

For the flag system, the level of fares and rates is set through international negotiation between airlines, and these agreements are subject to approval by governments. Rapid action is virtually impossible. In making the decisions, the subject of airline economics plays a relatively minor role with the major factors being such issues as how the various foreign-flag air services can best serve their country's economic and other national objectives.

No international mechanism has been as non-constructively maligned as IATA. The word itself has become fashionable opprobrium in the halls of academe. We don't like a good deal about it. We would, however, suggest that instead of condemning the IATA machinery that some one suggest a better alternative for how a hundred countries can agree on the exercise of their inherent sovereign power.

6. Cost of Capital

Within the domestic system, the companies compete on relatively equal terms for capital, and the cost of capital depends on a company's rating and on its negotiating skill.

The cost of capital is higher for the U.S.-flag system than for the foreign-flag airlines. Capital is made available to foreign-flag airlines free of charge or at low cost by their own governments, and certain low-cost capital is also provided foreign-flag airlines through the United States Government, which does not provide similar capital for the U.S.-flag system.¹

7. Price Control

The price of most supplies, including fuel, used by the domestic system can be controlled by the U.S. Government. A significant portion of the supplies, notably fuel, used by the U.S.-flag system, and purchased abroad cannot be price-controlled by the U.S. Government.

8. Political and Economic Environment

The domestic system functions within the relatively stable domestic political and economic environment of the United States. The U.S.-flag system is subject to the effects of foreign political and economic turmoil (as when a war or a national strike forces suspension of service to some markets and also causes costly circuitous routing of flights in order to avoid war zones).

9. Subsidized Competition

Within the domestic system, trunklines do not face competition from other trunklines that are subsidized. With few exceptions, the U.S.-flag system competes again subsidized government-owned or government-support foreign-flag airlines—subsidized not only to cover the operations of airline systems but also the manufacture of aircraft as well as other associated elements of a transportation complex.

10. The Flag System's Basic Economic and Policy Problems

The basic economic and policy problems of the U.S.-flag system can be simply and compactly stated:

(a) Competition against the U.S.-flag system has been established on a scale that is destructive of the U.S. interest, particularly since much of the foreign-flag competition receives subsidy and other special support and since virtually all foreign-flag systems are fed by extensive domestic operations.

¹ In fiscal year 1974, Ex-Im credits for aviation purchases granted to foreign airlines totaled \$918 million, at interest rates of 6 and 7 percent, characteristically far lower than the rates then being charged by commercial lenders.

(b) The U.S.-flag system today does not have equal treatment with foreign-flag airlines. The interests of the foreign-flag airlines are generally advanced in a more coordinated and systematic fashion by foreign governments than are the interests of the U.S.-flag system by the U.S. Government. The U.S.-flag system does not in fact have equality of competitive opportunity.

(c) For a large portion of the world's air network, fares and rates had been set at levels that are not compensatory.

It can be seen that Pan Am's problems are unique, for Pan Am is unlike any other U.S. airline.

Pan American's greatest special problem, however, is the long history of regulatory actions which, bit by bit, sapped away at the strength of a strong carrier. There was no deliberate government policy to cripple us. Rather, on the basis of uncoordinated case-by-case review, it was decided in each case that that particular straw would not break our back.

Pan Am's problems cannot be adequately comprehended without relating them to a broad view of the entire airline industry, both domestic and international, and to the regulatory steps which in the past preceded the present critical situation.

II. HISTORY OF OUR U.S.-FLAG SYSTEM

What impact have these differences in systems, but comparability of certification and entry criteria, had on our U.S.-flag systems? Pan Am had initiated Caribbean services in 1928, Latin America service in 1930, inaugurated transpacific services in October of 1936 before the Civil Aeronautics Act was passed in 1938, and was certificated across the Atlantic in 1939.

World War II, at one and the same time, immobilized air commerce yet ultimately became its greatest stimulant. At the close of the war, the transatlantic market appeared the most immediately promising. In 1945, three basic routes to Europe were designed: across the Atlantic to Scandinavia and Russia; to India via the United Kingdom, Germany, east Europe and Turkey; and a southern route by way of France, Iberia and the Mediterranean basin to southern India. In 1950, Pan Am's acquisition of American Overseas Airlines' northern route precipitated a redesign of the competitive map which resulted in U.S. competition in foreign markets for the first time.

This looked good and sound because the tired world had not yet developed, with U.S. assistance, its economic muscle. The illusion of healthy and necessary U.S. competition provoked, over the next two decades, the grant of competition among U.S. airlines in almost every major international market. Over the years, since 1950, the principal airline components of the domestic system have been granted international or overseas routes regardless of the growth and strength and strength and government nourishment of the scores of foreign-flag competitors.

III. PAN AM: THE CURRENT CRISIS

1. A Brief Background

Pan Am will be 50 years old in 1977. Pan Am was the first U.S. international carrier when the Act was passed in 1938. Notwithstanding its efforts over the years to improve its competitive position, its basic route system has remained virtually the same since 1950, by government order.

At the same time, every other major U.S. trunkline has been granted regulatory permission to grow significantly over the last 20 years, often by diluting Pan Am's international route potential.

Every major "domestic" U.S. air carrier has been given the right to expand into international or overseas services while Pan Am still is not permitted to fly at home in equitable competition and is rigidly confined by U.S. regulation basically to international and overseas routes. (Pan Am's "domestic" operations date from the period when Alaska and Hawaii were still territories of the United States.)

2. Pan Am has been An Innovator

From the outset in 1927, Pan Am has been recognized as the pioneer of the industry, worldwide. Virtually all overseas routes in the world were first opened by Pan Am. But Pan Am has pioneered in every other phase of the airline industry's development, as well.

Despite the rigidity of regulations circumscribing Pan Am's efforts to expand its operations in order to compete evenly, Pan Am has an unparalleled record of innovating fare reductions. This unique record, beginning in 1946, extended

to all Pan Am routes and comprehended every type of fare. Only recently, in the autumn of 1970, Pan Am's attempt to introduce a \$99 standby student fare to Europe was rejected by IATA, the international governing body.

Pan Am was the first airline to recognize that air transportation was not the only necessity for tourism. Pan Am's wholly owned subsidiary, the Intercontinental Hotel Corporation, opened its first hotel in 1946. It now owns, manages or franchises 66 hotels in 46 countries. Some of these establishments were developed in the national interest in conjunction with the government's policy of assisting the emerging economies of the then underdeveloped nations.

Pan Am has been the industry's technological leader. It introduced the jets in 1958; the Boeing 747's, the first of the widebodied jets, early in 1970. Pan Am's initial order enabled Boeing to go ahead with production of the 747, and Pratt & Whitney to proceed with the JT9D engine. Pan Am's initial order encouraged other U.S. and foreign-flag carriers to order the 747. Pan Am's leadership in jet procurement has led to orders amounting to \$4.14 billion by mid-1971, including \$1.78 billion by foreign airlines.

3. Pan Am's Competitive Situation in the Air Markets of the World

Pan Am is subject to more competition and to more restrictions than any other airline in the world. Pan Am is the only U.S. major airline without a domestic network. As if it were a foreign airline, Pan Am is prohibited from passenger-cargo service between cities within the continental U.S. Pan Am's foreign-flag competitors are not so restricted in their own countries.

Pan Am's overseas routes have continuously been diluted through the years by awards to its U.S. competitors without compensatory authorizations to balance and to maintain its competitive position.

Gradually over the years, Pan Am has been subjected to dilution of its profit potential by more unsound and excessive competition—both U.S. and foreign, scheduled and charter—than any other airline. This has seriously affected its profitability.

Competing with Pan Am in the world's travel market are: 49 airlines across the Atlantic; 27 to Caribbean points; 31 to cities in South America; 21 U.S. carriers to Hawaii; 12 to the Orient and 9 to the South Pacific.

U.S. and foreign carriers now provide what clearly is excessive competition on virtually all of Pan Am's routes. This unsound and uneconomic competition is largely the result of U.S. governmental edict.

One of the major causes of Pan Am's unique and distressed competitive position in the world's international markets is the fact that all of its U.S. competitors may also operate domestically, have strong U.S. continental traffic centers to feed and support their international operations. And, by reason of those U.S. domestic operations, they maintain a degree of influence over domestic passengers for routing over their own international routes. None of this is available to Pan Am.

Foreign airlines enjoy certain distinct advantages. Their own nationals understandably generally use their own airlines. Usually, they offer the U.S. airlines one or two major traffic points in their own nation in return for many more that they serve in the United States and beyond. They are government-supported airlines. They, too, have a domestic feed within their countries and extra-territorial access to their Commonwealth and territorial associates.

The supplemental problem underscores a basic rule of physics, applicable, with devastating results to U.S.-flag competition: for every action there is an equal and opposite reaction. Without arugging the emotional problem of supplemental versus scheduled carriers, it is obvious that an increased share of the transatlantic passenger market from about 2 percent in 1964 to over 17 percent in 1971 is not insubstantial competition.

4. The Classic Example of Hawaii

In 1936, Pan Am pioneered the flights from the mainland to Hawaii. After World War II, two more airlines, Northwest and United, were authorized to provide what was balanced competition under regulation.

The public interest was served. All three were able to exist. All three were able to follow Pan Am's traditional policy of offering lower prices as traffic increased and profits developed.

In 1969, five more U.S. airlines were granted the rights to compete for the Hawaiian air travel business. All had mid-American rights and access to the vast and mid-continental population markets, as had the original two competitors, Northwest and United.

This is a classic example of reasonable and sound competition being cast aside in favor of unsound and excessive competition, without understandable rhyme, reason or principle. Although in this case, as in others, Pan Am's long-standing routes have been the constant targets, there have been no balancing or compensatory awards to Pan Am.

In fact, despite Pan Am's development of the Hawaiian market and with the advent of new long-range aircraft which allowed for nonstop flights to and from New York only two of the three original airlines, Northwest and United, received this award. Pan Am was denied the right. American, a newcomer to this route was chosen over Pan Am. (The Pan Am/American route swap corrects this.)

Denied those nonstop rights, later that same year, Pan Am petitioned unsuccessfully for the right of "fill-up" traffic between New York and California. No domestic passengers or cargo were allowed. "Fill-up" traffic would have meant an opportunity to carry a small number of domestic-bound passengers between the two coasts. At most, it would have resulted in one or two flights a day—an additional public service with little, if any effect on the U.S. airlines already with those rights.

5. The Caribbean

Four U.S. airlines presently serve the Caribbean region—Pan Am, American, Eastern, Delta. In addition, 12 foreign scheduled carriers and 9 U.S. supplementals are authorized to operate in that area.

This abundance of competition has made it virtually impossible for any scheduled airline to make its Caribbean routes profitable. One previously-authorized scheduled airline, Trans-Caribbean, on the threshold of insolvency by the end of 1969, was acquired by American. This permitted American Airlines to expand its far-flung domestic and international route structure into this already overburdened air travel sector.

An example of this impact was to further erode Pan Am's limited domestic market since prior to this new government authorization of American into the Caribbean by acquisition, domestic passengers enroute to that region were generally routed by American to fly on Pan Am.

And the domestic sources of Eastern, as well as those of Delta give them an obvious advantage in strengthening their traffic opportunities to the Caribbean versus Pan Am's domestic gap.

6. The South Pacific

In 1969, the government also authorized American to compete with Pan Am in the South Pacific, with a number of competitive intermediate resort island stops to New Zealand and Australia.

On flights to the South Pacific, four foreign scheduled carriers and three U.S. supplementals had also been authorized to operate on this long-distance route which is necessary in the public interest but is far from being profitable.

While one U.S. airline might continue to be able to exist economically against this competition, it did not appear probable that two U.S. scheduled airlines could do so. American and Pan Am have wisely proposed to swap South Pacific and Caribbean routes to correct, by these self-help resources, an unhealthy competitive situation.

7. The U.S.-Orient

In 1948, Northwest Airlines was granted rights to fly from New York and Seattle to the Orient. In 1969, in the far-reaching Transpacific Case decision, Northwest was granted a new competitive route to the Orient via Hawaii and the Central Pacific. Once again, Pan Am's competitor had access to interior U.S. with its vast population centers as a source of increasing overseas traffic. And in addition, Northwest had been granted the added advantage of nonstop flights between New York and Hawaii of obvious importance to Central Pacific-Oriental travel.

That same 1969 decision also closed TWA's round-the-world gap by allowing TWA to fly from Hong Kong to Los Angeles via Taiwan, Okinawa, Guam and Hawaii. Here, again, Pan Am enlisted TWA in its self-help campaign trading certain European points for TWA's Pacific rights.

That same 1969 decision for the first time also certificated a U.S. all-cargo carrier, Flying Tigers, across the Central Pacific to Tokyo, Bangkok, Southeast Asia and other Far East points.

8. *Pan Am's Domestic Gap: An Important Element of the Problem*

Pan Am pioneered round-the-world flights. But Pan Am has been limited by U.S. Government edict to U.S. gateway cities, primarily on the nation's two coasts.

The possession of a domestic network was to remain as the preserve for the domestic airlines. At the outset, overseas and international passengers from U.S. continental cities were transferred to and thus were able to support the traffic needs of Pan Am and the other purely international air carriers.

But when, in 1945, the purely domestic airlines, American and TWA, were also authorized to become international carriers across the Atlantic and beyond, the die was cast. The criteria of regulated competition were applied in equal measure to U.S. domestic and international competition without regard to their basic differences.

IV. THE IMPACT OF THE FUEL CRISIS

From 1966's peak of profitability—at \$86 million noninflated dollars—to six years of mounting losses, Pan Am's trouble has been well-recorded. But there was near success in 1973, but not quite enough of a cushion of a comfortable, healthy competitive flavor to compensate for increased fuel prices further exacerbated by the impact of a combined inflation/recession in the predominantly vacation/pleasure market Pan Am serves.

We had felt in 1973 that we would enjoy our first profitable years since 1968. But, first the scarcity of fuel, then its escalated price shattered that hope. Even so, in 1973 we recorded a sharply increased operating profit of \$6.7 million compared to \$188,000 in 1972.

In 1974, our preliminary estimate of operating loss is about \$98 million.

Our fuel bill in 1974 was \$333 million. Our fuel bill in 1973 was \$170 million—about 100 percent increase over 1973. And this despite 12 percent less flying. Fuel costs represented over 21 percent of our total operating expenses whereas in 1972, the last complete calendar year before the fuel crisis, it represented about 10 percent.

In 1974, compared to 1973, Pan Am's operating expenses increased only 1.7 percent exclusive of fuel costs.

The cost, per gallon, of fuel to Pan Am rose from 19.6 cents at the beginning of 1974 to 38.6 cents by December. This compares to cost increases, to domestic carriers, of from about 15 cents per gallon at the beginning of the year to about 24 cents by the end of 1974. Since each penny per gallon increase means approximately \$10 million per year to Pan Am, you can calculate what Pan Am's burden of close to an additional 14 cents over the average domestic price would have meant to the profit picture of the principal U.S. domestic trunks who each burned in excess of 1½ billion gallons of fuel in 1974.

First, the fuel crunch and then the fuel punch sent Pan Am reeling.

V. PAN AM'S EFFORTS TO HELP ITSELF

So much has been written about Pan Am's problems and its efforts to have the government bail it out that there has been an insufficient focus on the efforts that Pan Am has made to help itself. These efforts have been vigorous and effective. They can be briefly described as follows:

1. Pan Am reduced personnel by 4,750 employees. At the beginning of 1972, Pan Am's total payroll was 36,084. By February of 1974, this has been reduced to 31,334. Reduction is continuing.

2. Pan Am reduced its capital expenditure program for 1974 from \$100 million to approximately \$70 million. Capital expenditures were limited to those for which previous commitments had been made or were necessary in the interest of safety, efficiency, or environmental improvement.

3. Capacity in terms of scheduled available seat-miles operated was reduced by 10.4 percent from 1973. In 1973, Pan Am operated 36.2 billion available seat-miles in scheduled service and operated 32.3 billion available seat-miles in the full year of 1974.

4. In order to protect itself from dangerous erosion of its scheduled traffic by foreign and U.S. charter operators, Pan Am decreased its charter operations considerably less than its scheduled operations. In 1973, it operated 4.263 billion available seat-miles in charter operations. In 1974, it operated 4.212 billion in this service, a decrease of only 1.2 percent. Pan Am is the largest passenger charter operator in the world.

5. Pan Am entered into the following agreements to improve the strength of its route system:

(a) *TWA/PAA*.—By this agreement Pan Am withdrew from Ireland and TWA withdrew from certain of its routes in Africa. The agreement has been approved by the CAB and is in effect.

(b) *AA/PAA*.—By this agreement, the approval of which is pending before the CAB, American withdrew from the South Pacific (south of Honolulu) and Pan Am undertook to transfer to American certain of its routes in the Caribbean. When this agreement is approved, Pan Am will also operate American's present route from New York, Chicago and Dallas/Fort Worth to Honolulu.

(c) *Western/PAA*.—By this agreement Pan Am transferred a Boeing 707 and its route from Seattle to Fairbanks to Western for \$6.3 million in cash. This agreement is pending before the Civil Aeronautics Board.

(d) *TWA/PAA*.—By this agreement, recently approved by the CAB, TWA and Pan Am seeks to eliminate part of the head-to-head competition between the two carriers in the Pacific and in Europe.

6. Pan Am suspended service at 15 points on its worldwide system and if it could secure CAB approval for the agreements referred to above, it would be prepared to suspend additional services.

7. With the approval of the CAB, Pan Am has entered into capacity reduction agreements as follows:

(a) New York/San Juan.

(b) Miami/San Juan—Miami/Virgin Islands.

(c) US/UK.

(d) US/Italy.

(e) US/Venezuela.

8. It has vigorously pursued its application for authority to operate between Los Angeles and Miami, to operate between New York and Johannesburg via Rio de Janeiro, and to improve its Pacific system by operating between Saipan and Tokyo.

9. Pan Am has reduced its fleet size from 161 in 1970 to 144 in 1972 and 134 in 1974. During 1974, used aircraft were sold for \$22 million.

10. Pan Am has developed and carried into effect a fuel conservation program which saved 40 million gallons for the first 9-months of 1974.

By reason of the improvements in efficiency set out above, Pan Am in 1973 incurred operating expenses per revenue ton-mile of 40.1 cents, the lowest in the trunkline industry. It incurred available ton-mile costs of 19.6 cents, the third lowest in the industry. In 1974, Pan Am's operating expenses, excluding fuel which is virtually uncontrollable, have increased only 1.7 percent notwithstanding U.S. inflation of over 10 percent and even higher inflation rates in the countries in which it operates. Pan Am's fuel cost increase for 1974 was approximately \$170 million. Its 1974 net loss was \$81.8 million. Thus, it was able to swallow close to \$90 million of uncontrollable cost increases.

Pan Am's efforts have increased its overall productivity dramatically. Using 1967 as a base of 100, the 1973 inflation index for the trunklines and Pan Am as a group, has increased to 142.7 and productivity up 117.5. Through the second quarter of 1974, the inflation index for Pan Am is 158.9, and productivity is 130.9. Thus, Pan Am has been faced with inflation more severe than the industry as a whole, and its productivity increase has been considerably higher.

As part of the continuing program to help itself, the following additional steps are being taken:

1. In order to meet a severe cash shortage during the low traffic months of the winter and early spring, Pan Am negotiated a \$125 million line of credit. To secure this line of credit, Pan Am had to agree to its termination on September 30, 1975, and to pledge to long- and short-term lenders virtually all of its assets.

2. Further overall cost reduction programs, the continuation of the present policy on capital expenditures, and new and drastic measures designed to mobilize cash resources are expected to improve the Company's cash position.

3. Further sale of used aircraft and surplus property is expected to provide substantial additional cash during 1975.

4. It has entered into negotiations with the Government of Iran seeking to secure a long-term loan of approximately \$300 million and has vigorously pursued these negotiations to the point where there is every reason to anticipate success if our Government does not introduce insurmountable obstacles.

As we have noted, our efforts at self-help have been dislocated by the extraordinary cost of fuel—a cost far greater for us than that of the domestic air-

lines who enjoy some measure of price control. Since over 50 percent of our fuel is loaded overseas, our cost is substantially greater.

CONCLUSION

This testimony, along with the answers submitted to your questions, just begins to tell the Pan Am story.

In 1961, the President's Task Force on National Aviation Goals noted:

"Continued U.S. preeminence in international air transport is unquestionably in the national interest. Our extensive economic and political interests abroad require the special advantages which economical and technically sound air air transportation provides.

"A second reason for maintaining an aggressive and expanding international air transport system is its present and prospective national security value in terms of auxiliary military airlift capability and political contact with foreign countries.

"For these reasons, the decline of U.S.-flag carrier participation in the world air travel market—particularly significant and worrisome across the North Atlantic—deserves the most concentrated attention of the Government and the most affirmative effort of our airlines."

The need for U.S. preeminence still persists. Pan Am's presence as a United States aviation symbol around the world is still vital.

We feel that in the last years some greater understanding of the problem has manifested itself in affirmative action. The Congress has acted wisely to correct foreign restrictive and discriminatory practices. The Administration has proposed action to balance the competitive opportunity of Pan Am and TWA with foreign-flag airlines. The CAB has appeared constructively the self-help measures developed to redress some of the imbalance resultant from unsound competition.

We know that this subcommittee, to the extent that it can, will recommend further corrective action.

Senator KENNEDY. I want to welcome the members of the Civil Aeronautics Board. I am pleased to see Chairman O'Melia again, and I am happy to welcome members Minetti and West, here for the first time before us. Mr. O'Melia will present a statement. I would welcome comments from other members after the statement, or in response to questions. Chairman O'Melia, would you please present your testimony.

STATEMENTS OF RICHARD J. O'MELIA, ACTING CHAIRMAN, CIVIL AERONAUTICS BOARD; G. JOSEPH MINETTI, MEMBER, CAB; AND LEE R. WEST, MEMBER, CAB; ACCOMPANIED BY FREDERIC D. HOUGHTLING, ASSISTANT TO MEMBER MINETTI; WILLIAM B. CALDWELL, JR., DIRECTOR, BUREAU OF OPERATING RIGHTS, CAB; ARTHUR H. SIMMS, ACTING DEPUTY DIRECTOR, BUREAU OF ECONOMICS, CAB; AND STEVEN J. GROSS, ASSOCIATE GENERAL COUNSEL, CAB

Mr. O'MELIA. First I would like to introduce on my left Judge West, member of the CAB; Mr. Minetti of the CAB, and Mr. Houghtling, Mr. Minetti's assistant. On my right, Mr. Caldwell, head of the Bureau of Operating Rights, and next to him Mr. Simms, acting deputy director, Bureau of Economics, and Mr. Gross, acting general counsel, who is in place of Mr. Tom Heye whose good friend and good friend of ours died tragically over the weekend. We are deeply sad that Mr. Gingery died.

Senator KENNEDY. I want to indicate at this point we are very much saddened as well. We understand he was going to be of some help to

the subcommittee. We understand that he was a very highly regarded and distinguished public servant on the Board. Although I have never had the opportunity to meet him, from what I have known he has a reputation of dedicated public service to the Board, many years of public service, and we extend our sentiments to the members of the family, both on the record and obviously in a personal sense as well. I can understand the sense of loss that the members of the Board and the people who knew him and worked with him must feel. I appreciate your mentioning it.

[Mr. William Gingery, Director, Bureau of Enforcement, CAB, was scheduled to testify before the subcommittee this day. He committed suicide during the night preceding this hearing. These matters are discussed further in the hearing before this subcommittee on March 21, 1975. See, especially, pp. 2300-03, below.]

OVERALL CAB POLICY ON ENTRY INTO INDUSTRY AND ROUTES SINCE 1938

Mr. O'MELIA. Thank you, Senator.

I have a summarized statement that I have submitted to the subcommittee and I will briefly highlight some of the points.

A reading of the Board's major route decisions will show that the Board's overall route policy since 1938 has had two distinct but related goals: first, to expand the number of markets in which air service is provided; and second, to promote the expansion of competition among air carriers. In general, the expansion of competition in an expanding market has been a primary underpinning of the Board's route policy since 1938. It has long been recognized that the competitive environment that exists in our aviation industry has been responsible for the development of the high level and quality of service enjoyed by the traveling public in this country, which service constitutes the most extensive, convenient, efficient and least costly air transport system anywhere in the world. A very important secondary result of the Board's competitive route awards has been the expansion of first air service opportunities to many city-pair markets as a result of the tacking on of new points to the existing system of a successful applicant.

Senator KENNEDY. Would you just hold. We want to welcome Senator Thurmond who is an active member of this subcommittee. Of course, we are delighted to have him here. We have the members of the Board here, the Chairman, Mr. O'Melia, making his presentation.

Mr. O'MELIA. Since the midsixties, the Board has been permitting the local service carriers to enter markets served by trunkline carriers. The result is that in a very real sense many of these carriers have evolved into small trunkline carriers. The expansion of local service carriers accomplished several important objectives. By strengthening the carriers' route systems the Board accelerated the time when Government subsidy may no longer be required. And, by increasing market opportunities, the regional carriers were enabled to modernize their fleets and enjoy other technological improvements.

As you know, Mr. Chairman, the Board's route award policies were not limited to the trunk and local-service carriers. In addition, various specialist carriers were authorized to provide service in competition with trunkline carriers. These include all-cargo specialists that compete for cargo over routes served by the trunks' the supple-

mental carriers that compete for charter traffic with the trunks; various Alaskan and Hawaiian operators; and certificated helicopter carriers. A new trunkline carrier, Trans Caribbean Airways (now merged with American) was awarded a certificate, and certificates authorizing service over limited routes were awarded to Aspen Airways and Wright Airlines. In addition, in the midfifties the Board authorized 26 supplementals to provide individually ticketed service in competition with the trunks. I would also note that in July 1974 the Board established in the New England service investigation a new regional airline, Air New England, to provide service between New York and Boston and at least 12 other New England points.

REASONS FOR LACK OF CERTIFICATION OF NEW ENTRANTS INTO INDUSTRY

One of the issues that concerns this subcommittee, the administration, and a broad segment of the public is how the Board views competitive service. There is no question that in its history of route awards the Board has affirmed its recognition of the merits that can flow, in appropriate situations, from competitive service.

If it has determined that competitive authority is required to improve the efficiency and quality of the service, an equally difficult task for the Board is that of carrier selection. Carrier selection criteria include the question of which carrier can provide the most service benefits to passengers in the particular city-pair market under examination as well as in beyond-area markets; the need for carrier strengthening, which includes an examination of individual carrier profitability over the proposed route; the degree of historic identity in the market in issue; the extent of diversion from the incumbent, which varies by individual applicant, depending upon its route structure.

Thus, in any case involving a choice between an existing carrier and a would-be entrant, the existing carrier can virtually always show that it will be able to provide substantial public benefits in the form of through service to numerous points, in addition to those at issue in the proceeding, whereas the new entrant cannot make such a showing. In view of this and in light of the capital outlay required to serve a scheduled route, it is not surprising that applications by new entrants into the trunkline field have been relatively few. The degree of competitive expansion authorized by the Board has varied from time to time depending upon the state of the general economy and the airline industry.

"ROUTE MORATORIUM" 1969-74

This practice of the Board has been subject to severe criticism, to the point that it has been characterized by its critics as a "route moratorium." I think you will find, Mr. Chairman, if you examine the Board's decisions, and the public remarks made by Board members and by its senior staff officials, that this characterization does not truly reflect the Board's policy. On the contrary, the Board is keenly aware of its statutory mandate to be responsive to route applications and to act upon them as speedily as possible in keeping with the circumstances of each such application and with the judgmental decisions, with which it is also entrusted.

Senator KENNEDY. On that point, Mr. O'Melia, how can you say there has been no route moratorium? How many competitive route applications were actually set for hearings in 1973 or 1974?

Mr. O'MELIA. Well, there are several points I would like to make. During the sixties, as you heard this morning, there were a lot of route cases. In early 1970 there was a downturn in the economy. The cases that came before the Board were very few. There was no Board policy stating that there was to be a moratorium. In 1973 we experienced the fuel shortage from the fall of 1973 until the summer of 1974 the carriers were trying to find fuel, not trying to find new routes to operate.

Senator KENNEDY. Were there applications during this period of time?

Mr. O'MELIA. I am not sure. There probably were. Normally there are about a thousand docketed cases a year of which 300 or 400 of them are route cases. Of those I am not sure how many are normally filed for expedited consideration, which would then bring them before the Board.

Senator KENNEDY. As I understand it, even though there were no hearings that were set during this period of time, and even though you have claimed there was no moratorium, the staff study itself opens by saying that since approximately 1970, the cases involving new domestic route authority were generally not being set for hearing. [Bureau of Operating Rights, CAB, *The Domestic Route System*, foreward at i-ii (Oct. 1974).] How else would you characterize the policy of the CAB? Isn't that really a moratorium—are we just fencing on words here?

CAB WILL BE INCLINED TO HEAR ROUTE ENTRY APPLICATIONS IN THE FUTURE

Mr. O'MELIA. As one Board member, let me give you as straight an answer as I can, Senator. During my hearings before Senator Cannon when consideration was being given to my nomination as a member of the Board, I answered the question of the route moratorium two or three times. I said I was not in favor of a moratorium, that I felt that if cases are filed, and if the applicants ask for expeditious hearing, that they should be heard. Now this is in the record of those two hearing.

Senator KENNEDY. That is your view?

Mr. O'MELIA. That is my view. In fact, as far as I am concerned, there is no route moratorium as of now.

Senator KENNEDY. Let me just say, I think that is a very positive statement.

Mr. O'MELIA. Thank you, Senator.

Now, this probably has not been read but Board order 75-2-33 came out February 7, 1975, Eastern airlines exemptions, dockets 24626 and 27075. Let me read just two sentences:

During the past few years the Board has acted with caution in setting for hearing certificate amendment applications, where it appeared that granting the application would increase or intensify competition among the domestic air carriers. This course has been occasioned by depressed economic conditions in air transportation following a period of rapid expansion, and more recently by scarcity of fuel. It has also to some extent been influenced by unusual de-

mands on the time of the Board's staff in fare and rate matters, for example, the recently completed domestic passenger fare investigation. Undoubtedly this course can be expected to change as the relevant circumstances change, and it goes without saying that the Board has a continuing duty to address those situations where it becomes apparent that there are legitimate needs for additional and improved air service which are not being met.

Now, that is a five to nothing vote by the Board on the 7th of February.

Senator KENNEDY. We reviewed with the earlier witnesses the provisions of the Federal Aviation Act as well as the Administrative Procedures Act, which would appear to require at least a timely disposition of matters which are brought before the respective agencies. Then we heard from some of the witnesses, who characterized the inaction during this period of time as being a moratorium, for whatever reasons.

Do I understand your testimony now, that you believe that any applications that come through to the Board are going to at least get a timely disposition, and that at least there will be the possibility of hearings before the Board on those that meet certain criteria? The problem is we don't know what those criteria are, as I understand it. You can correct me at any time. It is awfully difficult, I would think, for any applicant to really know whether they will get a hearing or not because they don't know what the criteria are. The criterion of public interest is sufficiently vague, I would think, to permit what I think fair-minded people would feel is simply a policy of nonhearing by the Board.

We are interested, as I am sure you are, in having the Board be responsive to these legitimate requests. I am interested in the extent you feel you can make any kind of a statement which would indicate what the Board's policy is? I might ask the other members of the Board what they feel to be the policy of hearing those cases that were set for hearing some time ago, but have never been heard: for example, the Ohio/Indiana nonstop investigation; the Spokane-Montana points investigation; the Louisville-Washington/Baltimore service investigation, and there are others. What kind of assurance can you give us as to when these cases will be heard? What is the Board's attitude with regard to these cases?

Mr. O'MELIA. First, before I turn your question over to the other members, let me say that the standards for determining priority of hearings are in section 399.60 of the regulations. I won't go over them, but they are the standards that the carriers need to measure up to in their application where they want priority of hearing.

[The regulation referred to, 14 CFR sec. 399.60 (1974), follows:]

§ 399.60 Standards for determining priorities of hearing.

(a) *General.* This policy statement describes the general standards which will be used by the Board in determining the order in which it will designate for hearing those matters on its docket which are to be decided after notice and hearing. Among such matters are applications for certificates of public convenience and necessity or for foreign air carrier permits; applications under section 408 of the Act for approval of consolidations or acquisitions of control; complaint cases; and various ratemaking proceedings.

(b) *Standards.* Matters will be assigned for hearing in accordance with the degree of relative priority which each matter is entitled to on the basis of the comparative public interest involved therein. Among other things, the Board will take into account:

(1) Statutory requirements for preference or statutory limitations on the time within which the Board shall act;

(2) The impact of delay on the public or particular persons;

(3) The need for promptly securing compliance with the provisions of the Act;

(4) The time for which the matter has already been pending and which would be required to dispose of it;

(5) Whether the application requests renewal of an existing temporary authorization; and

(6) In matters relating to operating authority—

(i) Whether a proposal might reduce subsidy or increase economy of operations;

(ii) Whether an application proposes new service;

(iii) The volume of traffic that might be affected by the grant or denial of the proposal;

(iv) The period that has elapsed since the Board considered the service needs of the places or areas involved; and

(v) The relative availability of necessary staff members of the carriers, communities and the Board, in the light of other proceedings already in progress, to handle the processing of the case.

Interested persons may urge upon the Board such considerations as they believe should lead it to accord a particular application a priority different from that which the Board has given it.

As I said, I can speak only for myself, but as one Board member, I have given you my opinion. Now, if you want to ask the other Board members the same question, go ahead.

LEGALITY OF THE "ROUTE MORATORIUM"

Senator KENNEDY. You are aware, before we leave, Mr. Chairman, that there is a substantial body of lawyers who feel that CAB orders have been at some variance with what is in the regulations—

Mr. O'MELIA. I think you are referring to section 399.60.

Senator KENNEDY. Section 401 [of the Federal Aviation Act of 1958, 72 Stat. 754, 49 USC § 1371] and the regulations thereunder.

Let's hear other points.

Mr. MINETTI. I have prepared some comments here on the question on the legality of a route moratorium.

I do not believe the Board could simply announce it was not going to hear any more new route applications either for a period of years or an indefinite time. If the Board had ever announced such a policy I would certainly have dissented. I think section 401 of the act clearly contemplates that route applications are to be set for hearing, that they are to be granted if the Board finds after notice and hearing that the public convenience and need so requires; otherwise, they are to be denied.

At the same time, I think the Board has to have control over the order in which applications are heard. If we heard them in strict order of filing most of our time might easily be spent hearing applications which promise very little benefit to the traveling public.

Applications for service critically and urgently needed by the traveling public might take many years in coming to the top of the list.

I recall, for instance, that soon after the first successful moon shot one major carrier got publicity by filing an application with the Board for a route to the moon. Now should the Board have set that application for hearing?

It is my understanding that the Board at first tried to hear applications in order of filing, and the result was that certain carriers flooded the docket with applications for every new route they hoped to acquire in the next 10 years.

So we have to have some preliminary method, before actually setting an application for hearing, of deciding where it ought to go in a rational order of priorities, based on the factors of the public interest and not simply when it was filed.

Senator KENNEDY. I do not think there is any dispute whatsoever about what you mentioned concerning setting the order of agenda. I do not think any of us could possibly dispute that you have the responsibility and authority to work that kind of will, but that is not what we are talking about. We are talking about the fact there were not any hearings, not the question of whether you have the authority and responsibility to set them in a particular order.

Mr. MINETTI. As you know, Senator, I did dissent in many, many cases in which the Board refused to set cases for hearing.

Senator KENNEDY. As much as you may or may not be interested in the merits of a particular situation, that is out of our particular area of interest. What we are interested in is what I think has been characterized as a moratorium. Different words have been used. We are interested in the substance of the situation: that no hearings were held. What we are trying to find out—and I would be interested in whatever comments you make on the rationale from the legal and policy point of view—is what you are going to do in the future. I am interested in what happened in the past and reasons for it, but I am most interested in what the attitude will be now.

Mr. O'Melia has very constructively commented that he believes there should be a timely hearing in those matters.

Mr. MINETTI. That is what I am interested in, too.

HISTORY OF CAB DEVELOPMENT OF THE "ROUTE MORATORIUM"

Senator KENNEDY. Perhaps you could develop, since you were on the board from the beginning of the moratorium, or whatever word you want to use—

Mr. MINETTI. The phrase route moratorium came up in 1969 after the Board had decided a number of cases. I think at that time some of the carriers came in and suggested to the Board that we have a route moratorium to give them an opportunity to digest the new routes they had received. This was not shared by all the carriers, but some of them felt we should have a route moratorium. That is how the phrase route moratorium came up.

Senator KENNEDY. How did you respond to some of the applicants who pointed out that under the various legislation there was a responsibility by the Board for timely consideration of the various route applications? When someone raised that point to you how did you respond to that?

Mr. MINETTI. Well, as I said in one dissent, Senator, several years ago. I have no problem with a policy of caution in setting down route cases during time of financial difficulty. What I disagree with is carrying the policy of caution to the extreme of refusing to hear any route cases. I still think hearing no such cases at all is inconsistent with the mandate of the statute.

Senator KENNEDY. Could you tell us just a little bit about the meeting that you had with the carriers, in which it was suggested that there be a moratorium? Was that an open hearing or were there any notes kept on that?

Mr. MINETTI. I do not know whether there were any notes kept on that one.

Senator KENNEDY. You can see the point—I think it was suggested that the major carriers get new routes and, in order to solidify their positions, that there be a moratorium. They used those words. Subsequently, there was in effect a moratorium, and I suppose what we are interested in is how that policy was made. Was it made openly, if it was, how was it considered, and who said what, and what other interests were considered?

Mr. MINETTI. Well, I think that just developed as cases came before the Board. The Board stated the position was that there was a policy of caution.

Senator KENNEDY. It does not appear that every time it came up the merits of the particular case just happened to be consistent with the policy of caution during that period of time. That is not quite what you said earlier. As I understand what you said in response to an earlier question, a number of the major carriers came to members of the Board and indicated they needed some time to solidify their position. There was no announced policy, but at least an implied one, that there were not going to be any more new routes granted. I do not want to put words in your mouth, but it seems that is really the sequence of events.

What our subcommittee is interested in is what are the procedures developed resulting in some major policy considerations. Could you give me your view on this point, Mr. West? What I am interested in is moving from the current situation: Where we are going in the future.

Mr. WEST. I gave Senator Stevenson the same comment out in Peoria. I had no part, since I am newly on the Board, in the development of route moratorium, philosophy, of course. I am not in favor of it. I do not feel inclined to defend it.

I am in favor, and have so recommended to the Board, that we do conduct hearings in regard to applications. Now, there has to be some priority considerations and I think you recognize that. I think the Board is evolving a policy of trying to determine those and pass on them at the Board level rather than all together at the staff level, and I am active in the effort and will be in the future.

I do not think there is an official moratorium. I think that was a majority philosophy at the time.

I do not question the motives of the members involved in that so-called philosophy. I just do not agree with it.

Senator KENNEDY. I suppose the point is in that reaching a policy of this importance and magnitude, informal discussions, whether they

are right or wrong, will certainly impact major industries of this country. It seems to me that there should be at least some kind of a proceeding or hearing in which various interested groups are able to participate. As I understand it, there was at least some kind of informal understanding. It is not clear how the understanding was reached. Mr. Minnetti has indicated some of those who have been awarded the routes after being in touch with Board members. There appears to have been some understanding within the Board that this was going to be the policy, and then it was strengthened in the refusal to have any hearings, in the way that applications were disposed of before the Board, and I suppose our question is really whether this is the best and most effective way of implementing a policy.

Mr. WEST. I think not, Senator. I think Mr. Minetti has been most interested and most active in attempting to articulate some standards by which we can determine which cases should come up for hearing and which should not be passed on. From my personal knowledge, I know he is very active in that area.

CAB STAFF STUDY ON ROUTE ENTRY, THE DOMESTIC ROUTE SYSTEM (1974)

I think we are also susceptible to the charge that we conduct our business in a way that no one knows what factors we take into consideration. Judge Friendly has been complaining about this for years and years. I think that out of the route study—and I think we have to be very careful not to make this too restrictive—but we have to develop standards that can not only be determined within our staff and passed on to the Board, but provide a basis for judicial review of our failures.

Senator KENNEDY. I think that would be helpful. I would like to finish this point and then yield to Senator Thurmond.

We usually follow a rough rule of about 15 minutes or so. Senator Thurmond has been here and I would like for him to cover additional areas. The principal point concerns the criteria that has been outlined by the staff report. It is, I would think, a fair characterization to say that they are extremely restrictive.

Mr. WEST. That is not a Board release. That was a staff release, and I think you will recognize that I have to be extremely careful in commenting with regard to that because that is a matter out for comment pending before the Board which we will pass on in the future. I am aware of a number of criticisms of the staff release.

Senator KENNEDY. I think all of us are familiar enough with various reports are prepared at that level. They do not necessarily represent the view of the Board, and we do not want to view them as a characterization of the attitude of the members of the Board if they are not. I would like to yield.

FIRST-CLASS SERVICE AND THE NEED FOR LOW-FARE TRANSPORTATION

Senator THURMOND. Thank you. I will ask a few questions and then turn back. Mr. O'Melia, in view of the time required and the appropriation limitations of CAB, would you recommend that the CAB no longer have authority to assign new routes? Could your resources be more effectively used if—

Mr. O'MELIA. Senator, the Federal Aviation Act would have to be amended to allow the Board to have freer entry into the industry by

other carriers. The present policy of entry is in fact set forth in section 401 of the Federal Aviation Act.

Senator THURMOND. Whatever is necessary to give the public better rates, because air travel now is a mass form of travel, of course, as you know, and that should be encouraged over automobiles. I live about 9 hours from Washington down in South Carolina, and it costs, if I take my family, four or five people at \$45 apiece and maybe a little more, you can see what it costs. With an automobile you can go down there a lot cheaper.

Well, now, it seems to me for the average family there ought to be some way a man could travel by air and save a lot of money. I am wondering, too, is it necessary to have a first-class fare now? What is the purpose in having a first-class fare?

Mr. O'MELIA. Well, there are a lot of businessmen who I presume want to travel in connection with this business and cost is not a real obstacle, so they go first class.

Senator KENNEDY. It is not the real object because the taxpayers are paying for it; they are subsidizing first class.

Senator THURMOND. You carry very few people on the plane. If you take more on the plane, that ought to reduce the cost to the rest of the passengers, should it not?

Mr. O'MELIA. Let me have our rate expert answer your questions.

Mr. SIMMS. In the recently concluded domestic passenger fare investigation, one of the issues concerned the lawfulness of first-class fares. The Board, after a very extensive evidentiary hearing, concluded that the first-class fares have historically been too low, that they have burdened the coach-fare level. In other words, the carriers have in the long run lost money on the service and the Board as a consequence directed that the first-class fares be increased in stages over a 2-year period up to the level of the full costs.

Now, there are substantial questions as to the extent, as to whether first-class service will continue to be attractive at the much higher levels that will be in effect after the phase-in—the complete phase-in is completed. But experience with fairly high differentials in, for example, in the international markets, indicates there is a market for a first-class service at very sizable premiums.

Senator THURMOND. You can get three seats to the row if you have tourists and only two to first class.

Mr. SIMMS. Yes.

Senator THURMOND. And the airline would make more money if it was all tourists, would it not?

Mr. SIMMS. It depends upon the price the airline gets for it. In the past the price has not fully reflected the cost differential. It costs more per seat if your seat is larger.

Senator THURMOND. I will give you my illustration of going to Columbia, S.C., from Washington. It costs more, about \$10 more, to travel first class. If I travel first class, two seats to the row, it will be double that amount, probably \$55, two of us \$110, whereas if you have three seats, \$45, that is \$135 the airline will get, is it not?

Mr. SIMMS. Yes.

Senator THURMOND. And were your first-class passengers not costing the public more to travel?

Mr. SIMMS. The answer to that is at the present time, yes.

Senator THURMOND. Well, then, why do you not raise them?

Mr. SIMMS. We have.

Senator THURMOND. The airlines I travel on still have first class.

Mr. SIMMS. The Board has just completed its investigation and the order is effective April 29. Beginning April 29 the first-class fares will be higher.

Senator THURMOND. I travel tourist all the time. I see a lot of little government employees here up in the front section traveling first class. They do not have to pay it. It is a different thing. But I think service ought to be for the masses of the people, not for the rich and not for the high and mighty, but to give the lowest rate possible to serve the people. I think it is your duty to provide that.

Mr. SIMMS. Sir, the statute quite clearly precludes the Board from dictating to the carriers the type of service which the carriers provide. In other words, the carriers are free under the law to provide a first-class service if they wish, and there is no way the Board can directly interfere with that discretion.

What the Board can do and has done is ensure that the carriers make a proper charge for those services so that the more luxurious service is not conducted in a manner which burdens the mass traveler.

Senator KENNEDY. Could the Senator yield just on that point?

Senator THURMOND. Yes; I will be glad to.

Senator KENNEDY. On Senator Thurmond's point, there is no reason why you could not permit World Airways to provide that same service on a given route, is there?

Mr. SIMMS. That raises a whole new, quite a different set of questions.

Senator KENNEDY. To provide what Senator Thurmond so eloquently stated here this morning, you cannot require, as I understand it, that an airline perform a certain kind of service, but there is no reason why you cannot give a particular carrier authority to fly a given route down to South Carolina. You could do that, could you not? If some carriers were to take out all the first-class seats, if some of them wanted to do that and provide service at lower fares, you have the power to do that?

Mr. SIMMS. We have the power to certificate a carrier who, in his application, represents that he will provide that type of service, yes.

Senator THURMOND. And not only that, but first-class people get a little better meals and get wine with their meal, and who is paying for that?

Mr. SIMMS. Under the Board order all of those costs will be borne by the first-class user.

Senator THURMOND. For an hour or two, even up to 5 hours, is it necessary to serve meals? Cannot people eat before they get on the plane and eat when they get there? Would that not reduce a whole lot having all those meals and the weight of those meals, and the service of those meals requires more stewardesses to serve those meals? I think we have to in this country recognize that people want the safest form of air travel possible, and if you have all these fringe benefits let them charter a plane or go some other way. We have to provide for the masses of people the most economical transportation possible.

Mr. SIMMS. I think the Board, Senator, has been moving in various directions to meet those needs. One way is through the development of charter policies. After all, charters represent the most efficient form

of transportation possible, because the cost of charter service does not minimize the operation of empty seats.

FULL FARES FOR CHILDREN WHO ARE CARRIED

Senator THURMOND. I want to ask you another question that affects me, and I see it does other people with children. Is there any reason why a 3-year-old child has to have a ticket if the parents hold him on their lap?

Mr. SIMMS. Senator, the airlines have historically offered free transportation to what are essentially babies in arms, persons——

Senator THURMOND. Do the airlines do it or does the CAB require that?

Mr. SIMMS. No; the airlines. Under the tariffs that are filed by the airlines from time immemorial, children under 2 years have been carried free if they do not occupy a seat of their own. From 2 through 12 there is a discount for children. The Board has never had occasion to consider whether the 2-year cutoff is the right point at which to cut it off. The matter has not come before the Board.

Senator THURMOND. You have made it too costly for me to travel with these young babies I have got. I do not see why a 3-year-old child could not sit in the parents lap.

Mr. SIMMS. I suppose the next problem will be what about the 3½- or 4-year-old. You have to draw the line somewhere.

Senator THURMOND. Well, why not draw it up to 3 instead of 2, just increasing it a year? Now, Eastern tells me they would not object if I hold this little fellow on my lap, but they say that CAB requires that.

Mr. SIMMS. The Federal Aviation Act requires that Eastern adhere to its tariff. The Federal Aviation Act gives Eastern the right to file any tariff it pleases and the Board can suspend it and investigate it if the Board finds it is unlawful. I am not aware that Eastern has filed a tariff to authorize it to carry a 3-year-old without charge.

Senator THURMOND. At any rate, these are just things that have come to my attention as a man who rides the airlines every week, but it is getting very difficult. I will have to drive my automobile and take a lot longer time rather than to have to pay for all these children. It seems to me up until a child is 4 years old if the parent is holding him in his lap you ought to make some arrangement—in fact you ought to be encouraging them rather than riding in automobiles where they are more likely to get killed. I do not want to take much time on this, Mr. Chairman.

NEW ENTRY INTO THE INDUSTRY

Senator KENNEDY. Thank you, very much. Could I ask you, Mr. Chairman, how many new trunk carriers have been granted certification since 1950?

Mr. O'MELIA. Well, I listed all of them in my prepared testimony, Senator.

Senator KENNEDY. I think since 1950 there have not been any new trunk carriers, have there?

[In answer to question 19 of an extensive subcommittee questionnaire directed to the CAB in preparation for these hearings, the CAB indicated that between 1950 and 1974, 94 applications for new trunk-line authority (of which 79 were for domestic authority) have been

made to the CAB, and none had been granted. The CAB's complete answer is reprinted in the separately bound appendix to these hearings.]

Mr. O'MELIA. I do not think so, Senator. However, some of the smaller carriers reached the statute of trunk during that time.

Senator KENNEDY. The reason that I raise this point is that it raises serious questions about the original intent of the Civil Aeronautics Act. When the Aviation Act was being considered in 1938, I note, looking through the legislative history, that Senator Truman was the floor manager of the bill. Senator King of Utah, I believe, said that he was concerned to know just how far the bill would freeze existing routes and corporations. He felt that if it would exclude others who might desire to enter this great field, that there should be some amendments. Senator Truman assured Senator King no such development was likely under the act as drafted. Yet we have seen that this has not, in fact, been the policy of the Board—speaking not of your Board in particular, but of the Board over the period of its past. The fact is that they have turned down some 94 applications by firms outside the industry. I am wondering whether this doesn't create at least a presumptive case that the Board doesn't want any new blood in the industry itself.

Mr. O'MELIA. On the contrary, I think that in 1938 there were just four so-called trunk carriers. Today, if you will look at some of the air-taxi operators we have in the United States, they are bigger than the four trunk carriers which were called trunk carriers in 1938. I think the Board in its history has probably moved in the direction of creating better service by extending the routes for the so-called smaller carriers, now the local service carriers by certificating all cargo carriers and by authorizing helicopter carriers, and other specialist types. It doesn't mean that if you wanted to come into the industry and had enough money to try for a 401 certificate under the Aviation Act, that you would be precluded. That possibility is still there. Until that is changed you have to follow the law.

Senator KENNEDY. It would appear by the way the statute is drafted, it is still there, but as a practical matter it doesn't appear to be.

As I understand it, the four or five major trunk carriers operating in 1938 have just about the same percent of the market today as they had in 1938, except for American, which has gone from 28 to 15 percent. All the others remained just about the same. Also, in 1938 there were 16 trunk carriers, and today there are 10. What is the reaction of the Board, in terms of any new carriers? What will be the attitude of the Board in considering any requests for certification?

Mr. O'MELIA. Well, any carrier that applies certainly has the right to be heard. In my testimony I try to point out that a new carrier who seeks entry is at a great disadvantage against an existing, competing carrier, because a new carrier will probably only apply to operate between points a and b and probably has no beyond authority and couldn't compete with the existing carriers. That is on page 7 of my prepared testimony that I didn't go into.

Senator KENNEDY. It took, actually, an act of Congress to get the local service carriers permanently certificated, did it not?

Mr. O'MELIA. It did.

Senator KENNEDY. In 1955. And still we have no new trunk carriers.

Mr. O'MELIA. That is right.

Senator KENNEDY. We have had an application. We heard World Airways indicate what they were prepared to do, and I think that ought to be noted.

CAB WILLINGNESS TO HEAR FUTURE ROUTE CASES

On the subject of the route moratorium, we heard a little bit earlier that some carriers came down in 1969 and proposed a moratorium, and basically this policy was adopted on an ad hoc case-by-case basis, although there was no formal comment by the Board, or any opportunity for challenge to that idea. Now we have had the staff domestic route study, and again it hasn't been adopted by the Board. I am just wondering whether we can expect that the Board is going to face the situation in the future on an ad hoc case-by-case adoption, by the proposals in this study or whether there will be some formal procedure to allow for public input and challenges. What kind of assurances can you give us?

Mr. O'MELIA. We will be dealing with new route cases on an ad hoc basis until the new route study has been completed. This means that with the input from all sources, we will decide each case that has requested a expeditious hearing as it comes along. This, I hope, will work up to the time that the route study is completed. The study has a May 1, deadline for comments by the industry and by airport operators and carriers and whoever wants to comment. Once those comments are in, the staff study will be considered by the Board. I hope, down the road, that through that study standards will be set out as guidelines to give the Board in the future the same type of guidance that the domestic passenger fare case gave it as far as fares are concerned. I think this is a big step forward.

I understand that you want to know whether there would be public hearings. I think that the public can certainly be heard in any case before the Board.

Senator KENNEDY. When will that be resolved as far as the Board is concerned, the reactions to the staff study?

Mr. O'MELIA. We extended the dates for comment to the first of May, Senator, so that we would get good constructive comments. Hopefully from these hearings also we would benefit by the results of studying the views expressed at these hearings.

Senator KENNEDY. One of the questions that was raised earlier in defense of the route freeze or moratorium, was the question of the viability of airline profits. I would imagine that with the increase in profits this past year, that if this has been a consideration, as has been suggested, that it might lead you to give some additional consideration to the possibility of additional route entries.

Mr. O'MELIA. I am not sure I am following your question, Senator.

Senator KENNEDY. I believe it was World Airways that said they had applied for route structures in the past and that they would again if they thought that there was an opportunity for a return which made some sense financially, and if there were some likelihood of a hearing.

I gather from your testimony that you will consider giving a hearing to any legitimate or meritorious carrier. Given the increase in the profit structure over the past year, I would imagine there may be a number of applications for different routes. You have indicated that you would consider the applications as they came along.

I think you did indicate, in response to a question I had asked you up in Boston February 14th, that if there was an application by some carrier that wanted to provide PSA types of service in the Northeast you would at least be willing to give that a review.

Mr. O'MELIA. That is correct, Senator.

Senator, I forgot in my opening remarks to say that Mr. Timm is out of the country and that is why he is not here today. Judge Gilliland is home with the flu. If you have any written questions, they will be happy to answer them.

Senator KENNEDY. I would like to submit questions to the members of the Board, if I could, on price and entry policy, which is covered in your testimony, and also other areas as well.

Mr. O'MELIA. Fine.

Senator KENNEDY. Mr. West or Mr. Minetti, is there any further comment?

Mr. WEST. No.

Senator KENNEDY. We will recess and reconvene at 2:15 p.m.

[The prepared statement of Mr. O'Melia follows. See also the materials on the topic of certification in the separately bound appendix to these hearings.]

PREPARED STATEMENT OF RICHARD J. O'MELIA, ACTING CHAIRMAN,
CIVIL AERONAUTICS BOARD

CAB'S ROUTE POLICIES

Mr. Chairman, the topic your subcommittee is examining today is clearly one of the major facets of the Board's work. My testimony will cover the Board's practices and policies on routes, on entry into the air transportation system, and on the decisional factors involved in route awards.

In considering at the Board how we might be most responsive and contribute usefully to the purpose of these hearings, we had in mind your remarks last December when you announced the convening of these hearings. We have also received the opinions expressed before this Committee during its session on February 6 by representatives of various federal entities on possible approaches to regulatory reform and on the principal Board activities that could be usefully reexamined. With these thoughts in mind, I would like, first of all, to present a brief description of the statutory framework within which we operate. Then I will seek to set forth as succinctly as I can where we stand today on the question of route authority and how we plan to ensure that our route practices and procedures are truly responsive to the public's best interests in air transportation.

By enacting the Civil Aeronautics Act in 1938—the predecessor to the Federal Aviation Act of 1958—Congress determined that the play of free market forces alone was not sufficient to assure the long-term stability required for the development of a sound national air transportation system. As a result the Civil Aeronautics Board was created and vested by Congress with extensive powers to regulate the air carrier competitive environment. Specifically, the Board was granted, among other things, the exclusive power to control entry into and exit from the air transportation system.

A reading of the Board's major route decisions will show that the Board's overall route policy since 1938 has had two distinct but related goals: first, to expand the number of markets in which air service is provided; and second, to promote the expansion of competition among air carriers. In general, the expansion of competition in an expanding market has been a primary underpinning of

the Board's route policy since 1938. It has long been recognized that the competitive environment that exists in our aviation industry has been responsible for the development of the high level and quality of service enjoyed by the traveling public in this country, which service constitutes the most extensive, convenient, efficient and least costly air transport system anywhere in the world. A very important secondary result of the Board's competitive route awards has been the expansion of first air service opportunities to many city-pair markets as a result of the tacking on of new points to the existing system of a successful applicant.

With these primary goals of the Board as our premise, it is useful to take a look at how our present system of trunk carriers and local service carriers came into being.

The original domestic air transport system of nineteen carriers were established in 1938 under "grandfather" rights by Congress. This initial nucleus presented the Board with a fairly competitive route structure relative to the infant size of the industry. Only four carriers at that time had what we now consider to be trunkline type route structures: American, Eastern, TWA and United. The other carriers, such as Continental, Delta, Northwest and Braniff, were small regional operators performing feeder-type services similar in many respects to the subsidized services now performed by local service carriers. These other carriers were in some cases considerably smaller than many of today's air taxis. Competition was fostered by expanding the operating rights of the smaller trunks into markets served by larger trunks, thereby strengthening the smaller carriers and equalizing traffic opportunities. At the same time, the routes of the larger trunks were also enlarged. I should note that during that entire period, the industry's traffic growth averaged 16 percent per year.

Since the mid-sixties the Board has been permitting the local service carriers to enter markets served by trunkline carriers. The result is that in a very real sense many of these carriers have evolved into small trunkline carriers. The expansion of local service carriers accomplished several important objectives. By strengthening the carriers' route systems the Board accelerated the time when government subsidy may no longer be required. And, by increasing market opportunities, the regional carriers were enabled to modernize their fleets and enjoy other technological improvements.

As you know, Mr. Chairman, the Board's route award policies were not limited to the trunk and local service carriers. In addition, various specialist carriers were authorized to provide service in competition with trunkline carriers. These include all-cargo specialists that compete for cargo over routes served by trunks; the supplemental carriers that compete for charter traffic with the trunks; various Alaskan and Hawaiian operators; and certificated helicopter carriers. A new trunkline carrier, Trans Caribbean Airways (now merged with American) was awarded a certificate, and certificates authorizing service over limited routes were awarded to Aspen Airways and Wright Air Lines. In addition, in the midfifties the Board authorized 26 supplementals to provide individually ticketed service in competition with the trunks. The courts, however, ruled that this action was not authorized by the Act. Congress subsequently authorized the award of supplemental air carrier certificates, but precluded such carriers from performing individually ticketed service except under very limited circumstances.

I would also note that in July, 1974 the Board established in the *New England Service Investigation* a new regional airline, Air New England, to provide service between New York and Boston and at least 12 other New England points in Maine, Vermont, New Hampshire, and Massachusetts. That carrier is now in certificated operation. I believe that the Board's action in that case highlighted that the Board can respond, as the circumstances permit, to demonstrable service inadequacies with a bold exercise of its statutory authority and mandate.

Before proceeding to the matter of competitive service, I think it should be noted that the Board authorizes air service by the exemption process as well as by certificate award. I am sure everyone is familiar with the commuter carriers which use relatively small aircraft to provide feeder service to hundreds of the nation's small communities and sometimes serve high density, short haul, markets such as Washington-Philadelphia, or San Juan-St. Thomas. In addition, the Board frequently issues a more specialized type of exemption which we refer to as a large aircraft exemption—that is, an authorization to use equipment larger than that used by air taxis—where there is a showing that a relatively limited or specialized type of service is required.

One of the issues that concerns this subcommittee, the administration, and a broad segment of the public is how the Board views competitive service. There

is no question that in its history of route awards the Board has affirmed its recognition of the merits that can flow, in appropriate situations, from competitive service. A recent Board opinion said, in fact, and I quote, "We also bear in mind that the need of the traveling public for air transportation service is a paramount element of public interest, and the competition ultimately holds the greatest prospect for vigorous development of air transportation. . . ."¹

Over the years and as a result of several hundred cases the Board has developed standards for considering awards of competitive authority. These standards break down into two broad decisional categories—first, need for service, and secondary, carrier selection. Under the need for service category, the Board evaluates, based upon the evidentiary record, the extent to which the existing services of the incumbent are deficient and whether the markets are large enough to support additional service immediately or in the near future. Factors considered in determining "service deficiency" include to greater or lesser degrees, the number and timing of the incumbent carrier's flights; the quality of such flights (nonstop, 1-stop, multistop); the load factors on the flights; the particular patterns of service provided (i.e., the additional points served on the flights); the service amenities, etc.

If it has determined that competitive authority is required to improve the efficiency and quality of the service, an equally difficult task for the Board is that of carrier selection. Carrier selection criteria include the question of which carrier can provide the most service benefits to passengers in the particular city-pair market under examination as well as in "beyond-area" markets; the need for carrier strengthening, which includes an examination of individual carrier profitability over the proposed route; the degree of historic identity in the market in issue; the extent of diversion from the incumbent, which varies by individual applicant, depending upon its route structure.

Furthermore, in weighing the application of any new entrant, the Board has historically considered the probable diversion of revenues from existing carriers, the effect of that diversion on Federal subsidy payments, and the possible impairment of the ability of existing carriers to continue to serve their own routes, including those cities on their routes which they may serve at a loss. I want to say in this connection that the Board has no policy which precludes the entry of a new carrier. Nonetheless, it must be acknowledged that an applicant who is not an existing carrier is at a substantial disadvantage vis-a-vis existing carriers. This is because such an applicant, by definition, is unable to provide service to "beyond area" markets, which, as previously mentioned, is an important standard in determining carrier selection.

Thus, in any case involving a choice between an existing carrier and a would be new entrant, the existing carrier can virtually always show that it will be able to provide substantial public benefits in the form of through service to numerous points, in addition to those at issue in the proceeding, whereas the new entrant cannot make such a showing. In view of this and in light of the capital outlay required to serve a scheduled route, it is not surprising that applications by new entrants into the trunkline field have been relatively few.

The degree of competitive expansion authorized by the Board has varied from time to time depending upon the state of the general economy and of the airline industry, as well as the rate of traffic growth. These are all factors which are inextricably intertwined. On top of that, the Board has recently had to focus on fuel supply considerations and environmental matters.

The earnings of the airline industry are extremely erratic. They are far more cyclical than is the case with most other industries or the economy as a whole. During the depressed phases of the cycle, when traffic declines and carrier losses increase—such as in the early seventies, the Board has accorded applications for competitive route authority low priority in order to allow the carriers to adjust their systems to take into account the routes they and their competitors acquired during the previous up-cycle and to permit lagging traffic demand to once again catch up to the capacity increases that seem inevitably to flow from route awards.

This practice of the Board has been subject to severe criticism, to the point that it has been characterized by its critics as a "route moratorium." I think you will find, Mr. Chairman, if you examine the Board's decisions, and the public

¹ Order 72-12-29.

remarks made by Board Members and by its senior staff officials, that this characterization does not truly reflect the Board's policy. On the contrary, the Board is keenly aware of its statutory mandate to be responsive to route applications and to act upon them as speedily as possible in keeping with the circumstances of each such application and with the judgmental decisions, with which it is also entrusted, to assign necessary priorities for its work. The Board's activities indicate that as carrier earnings and the general economy improve the Board's route programs have kept pace with the rise in traffic demand and carrier health. In orders setting an application for hearing, or refusing to do so, you will find discussion of traffic levels, load factors, the timing and frequency of existing flights, fuel availability and of all other factors relevant to the question of the priority to be accorded to the application.

Finally, the Board's policies on exit can be just as important as its policies on entry in insuring that the American public gets the kind of air transportation they need, and that the system remains healthy. As in the case of route awards, the Act requires the Board to balance the needs of individual travelers and communities, on the one hand, with the overall economic efficiency of the system, on the other. Thus, the decision on a carrier's deletion or suspension request has to be based on a weighing process. In one recent deletion case, for example, the historic traffic levels at the communities in question were as low as those of many points that we had in the past agreed to delete from a carrier's system.² In this instance, however, the communities made a strong showing regarding the possible impact of deletion on their future. Accordingly, the Board decided that the communities should be given at least another year of air service during which time they would have to show their willingness to use and promote the service.

In other circumstances, where air transportation economics warrant, the Board has encouraged the switch from large aircraft service by certificated carriers to small aircraft service provided by air taxis pursuant to agreements between the carriers involved. In fact, in the case of one experimental situation of this kind, the Board provided for a "flow-through" of the certificated carrier's subsidy funds to the replacement air taxi, thereby providing for air service to a small community at a considerable savings in subsidy for the taxpayer.³

In concluding these remarks, Mr. Chairman, I want to note that in December 1974, the Board's Bureau of Operating Rights issued a study of the domestic route system on which industry comments are due on May 1, 1975. The study was undertaken to accomplish three objectives: 1) to assess the existing system, analyze its development and to determine the effect and extent of service competition; 2) to construct a model for the development of traffic projections to the year 1985 for the domestic system and individual city-pair markets, and projections of probable service requirements; and, 3) to set forth recommendations with respect to going forward with a new route program. The Bureau recommends in this study that the Board promulgate new rules to define the standard for priority hearing of applications involving first effective air service as well as other improved and competitive service. Secondly, the rule would define standards for determining the priority of hearing cases on service adequacy and other deficiencies in service, as well as excessive service. I would urge that this subcommittee take cognizance of the historical analyses contained in this staff study in the course of its deliberations.

Let me finally say, Mr. Chairman, that the Board recognizes that the system can always be improved and, as illustrated by the route study referred to above, the Board's attempt to fine-tune the system to meet the changing times in a continuing process. It is difficult in this short space to comment on the many suggestions that have been made that the time has come to deregulate air transportation in this country. I anticipate that these hearings and the questions generated by the Chairman and the subcommittee staff will provide an adequate forum to explore these complex and important issues.

My colleagues and I, Mr. Chairman, are at your disposal for any questions you may care to ask.

[Whereupon, at 12:45 p.m. the subcommittee recessed to reconvene at 2:15 p.m. the same day.]

² Order 74-11-19.

³ Order 74-4-77.

AFTERNOON SESSION

Senator KENNEDY. We will come to order. Our first two witnesses this afternoon will be Mr. Donald Baker and Mr. William Kutzke. Mr. Donald Baker is a Deputy Assistant Attorney General in the Antitrust Division. Mr. Kutzke is an attorney at the Department of Transportation who has represented the Department in many CAB proceedings. He will present the testimony of Mr. John Snow, the Deputy Assistant Secretary of the Department of Transportation for Policy, Plans and International Affairs.

The staff had the chance to review the statement of Mr. Baker and we would like to thank you for the detailed comments concerning entry policy and route awards. Perhaps you could just summarize briefly and then we could get to questions. I want to thank you for coming.

STATEMENTS OF DONALD I. BAKER, DEPUTY ASSISTANT ATTORNEY GENERAL, ANTITRUST DIVISION, DEPARTMENT OF JUSTICE, AND WILLIAM A. KUTZKE, OFFICE OF THE GENERAL COUNSEL, DEPARTMENT OF TRANSPORTATION; ACCOMPANIED BY DONALD FARMER, SPECIAL ASSISTANT TO THE ASSISTANT ATTORNEY GENERAL, DOJ

Mr. BAKER. Thank you, Mr. Chairman. I would like to introduce my colleague, Don Farmer, who has worked extensively on airline matters over a period of time. He is special assistant to the Assistant Attorney General and a resident expert.

Let me just summarize very briefly what I have got in my statement.

I would make about five or six key points. First of all, entry and pricing are very closely related. The entry threat is a vital consideration if you are going to have pricing flexibility. Moreover, an open entry policy without pricing flexibility tends to just produce wasteful service competition and is really not a very useful alternative.

My second general point would be that route policy is really concerned with two kinds of competition: First, the city-pair competition for actual passengers; and, second is industry-wide potential competition between carriers to get on different routes.

INITIAL FINANCING OF AN AIRLINE (ECONOMIC BARRIERS TO ENTRY)

Third, the CAB has been very restrictive in its approach to these entry questions and particularly its approach to new entry into the industry. What it has done, and the statement details it, is basically confine the trunk route awards to the firms that were in the industry in 1938, the grandfather carriers. The result has been a lack of new blood in the industry; we have a set way of doing things.

Senator KENNEDY. How do you respond that new airlines cannot get the necessary initial financing. These trunk carriers are going to need enormous amounts of capital to get started, so this is really as much a process of market forces as a CAB decision.

Mr. BAKER. I would respond by saying I do not think it is so. I would say that for several reasons. For example, the innovative Cali-

fornia carriers, the PSA's and the Air California's, have gotten absolutely no encouragement from the CAB potential trunkline carriers.

Senator KENNEDY. You have heard that California and Texas are really specialized.

Mr. BAKER. I understand their arguments and I have heard them as often as you have.

Senator KENNEDY. That is right. Probably more.

Mr. BAKER. But, no, the point is, if I recall correctly in the early sixties, PSA and Air California tried to get interstate authority to go into the Northwest and there was absolutely no Board interest whatever in allowing that kind of thing. Second, the witness this morning from United Air Lines pointed out the fact that a new entrant was, in fact, quite likely to be able to put the thing together, leasing planes and crews; and, therefore, the vast scale, the vast capital argument, really did not hold water.

So I think that the argument that nobody else has gotten in because they were not around and did not want to get in and did not have the capability is just plain not true.

Obviously, we will look carefully at any evidence to the contrary, in terms of hard facts. But, of course, it is very hard to pin down. Coming down from the Board's generally restrictive policy on entry into the industry to their particular route award policy, here it seems to me that—and this has been the question of passing out routes among the existing carriers within the club—the Board has made at least two errors that are outlined in my testimony. First of all, the Board has emphasized service competition over price competition. It has just simply allowed people on with no real opportunity for fully competing, as you and Senator Thurmond were talking about this morning in terms of offering different mixes of quality and service.

And second, the Board and the staff proposals have emphasized rates of return and so forth excessively, indeed, this has been their main preoccupation.

Now I would draw from this history of both the entry into the industry and the particular route awards some conclusions. First of all, the Federal Aviation Act has not required the CAB to behave in this way. The Act lets them——

NEED FOR LEGISLATION

Senator KENNEDY. You heard Mr. O'Melia indicate this morning, in response to Senator Thurmond, that to really open up the entry process might very well require changes in the statute itself, that they are under mandate by the Congress to promote a certain kind of air transportation system, and that if Congress wants to do otherwise—and this is implied time after time in responses by members of the Board—will require revision of the congressional mandate.

They are ready to do it if Congress wants it. And if Congress does not act, they know the way the act has been enforced in the past.

Mr. BAKER. Well, I heard that and I also heard Acting Secretary Barnum last week say the opposite, namely that the Board could do it if it wanted to. And with all due respect, I agree with Mr. Barnum. The Board has, on pricing and entry, the legal authority to adopt very open rules and very open price indexes.

Senator KENNEDY. You are satisfied from the legislative history and your reading of the statute that this power exists within the Board itself.

Mr. BAKER. Yes. I think that the power really does exist. In a sense, what the acting chairman said this morning was that we have administered the statute in one way for a long time and, unless the Congress gives us a new set of orders, we are going to go on doing it that way, which leads me——

Senator KENNEDY. What is your answer to that?

Mr. BAKER. That you ought to change the statute. And, basically, the fault lies with the discretion the agency has and the use of it. Now this is not a unique situation with the CAB. In fact, the history of regulatory agencies generally has been that they have been granted broad discretion, they have generally been influenced heavily by the people they were supposed to regulate, and they have generally exercised the discretion in favor of the people who they were supposed to regulate.

And this is what Jordan calls the cartel theory of regulation, and it is not surprising that here we have this system of regulation, which is supposed to protect the traveling public, but its leading champions, who sit around these tables, are not the traveling public, but the carriers. This could be repeated industry after industry—banking, securities, whatever.

And I have dealt——

Senator KENNEDY. So you are satisfied it is really a question of the Board's implementation of the act. And as I understand, in terms of the history of the CAB, there have been times when the Board actually has had a more liberal policy in terms of entry.

Mr. BAKER. That is correct.

Senator KENNEDY. And you can call upon that as being a sufficient precedent. How do you respond to the fact that most of the people that have spoken on this issue are from industry? You have heard the gentleman from United Air Lines, Mr. De Voursney, who indicated that if the CAB is, in fact, a captive agency, look after us if they ever turn against us.

IF THE CAB PROTECTS THE AIRLINES, WHY AREN'T THEY RICH?

How do you respond to the point that is made again, time and time again, that the airlines really have not experienced good times? This point is made frequently, but it really has not got a basis of fact, because if it did, the airlines would have shown a good deal more lucrative profits than they have been permitted over the period when they have had a restrictive policy of entry and when they have kept up price.

Mr. BAKER. I see this a little differently. What they have had all the way through is a restrictive policy on price and a varying policy on entry by firms already in the industry. And the result has been that, while established carriers are allowed on particular routes, they are tied down by a fixed price scheme. They are allowed to put on as many seats as they want. And, basically, what you have had is the rates set to earn a monopoly profit and then the carriers have proceeded to compete away the monopoly profits in empty seats. And this is not,

again, unique to this industry. The securities industry, which has the same kind of price regulated scheme with no particular control over entry and facilities, the securities firms have competed away monopoly profits in the same way.

So I do not see regulation as a guarantee. Senator Kennedy, of a comfortable life. I see it as a guarantee that they will be allowed to compete in a way they prefer to compete rather than through price competition.

Anyway, to finish off the points in my statement, this leads us to recommend that the agency discretion must be changed. It must be limited or eliminated. And we suggest a range of possibilities that are under consideration, including some form of clear statutory command to the Board that it allow entry unless it is able to make specific findings that there would be harm from allowing new entry. In the parallel surface transportation area, the administration suggested in 1971 that entry be allowed unless there is a showing that new entry is likely to result in less service rather than more in a reasonable period.

The other broad alternative mentioned was the possibility of just eliminating CAB control over rates and entry as a part of a general deregulation scheme. And again, we say that is one of the things that is under consideration.

Senator KENNEDY. When will we know what the Department position is?

Mr. BAKER. Two weeks ago, acting Secretary Barnum said 6 weeks. Last week he said 5 weeks to another committee. Therefore, this week I will say 4 weeks. I do not know anything going on that has put us off our schedule, and we are actively at work.

Senator KENNEDY. Do you want to reduce it to March 4, when you are coming back? You can make a note of that.

Mr. BAKER. March 4 does not sound right to me, especially since I am going to be out of town half the time between now and then, except for your hearings.

EFFECT OF OPEN COMPETITION ON SMALL-TOWN SERVICE

This is my last point. Any proposal like this tends to lead to the argument that there will be no service, or service will greatly go down in thin markets. You have heard that this morning, and basically, the testimony suggests several answers to this.

First of all, that the efficiencies, the incentives to efficiency in running a route system remain under freer entry, and indeed, the management has greater discretion in how it uses its planes to optimize the route operation in a freer entry situation.

We offered you the Bar Harbor example because we thought we ought to have some example from New England. There an unregulated, open-entry kind of situation resulted in regular year-round service from Bar Harbor to Boston, which had not been available before.

It is possible, it seems to us, that a more competitive environment would lead to more efficient operations and, therefore, would lead to lower levels of subsidies being needed. If there are to be subsidies, we think that they should be spelled out as clearly as possible, as indeed, you said this morning. We should all know who is getting paid what

and how much it is costing the rest of us. We feel very strongly that the cross-subsidy approach is inequitable and inefficient—that it basically flows from a premise that “what the public does not know does not matter.” A person who is flying on the Birmingham-to-Boston route does not know that he is being subsidized by you on your trips from Washington to Boston, and it is not clear that he would vote for it if he did know about it. Cross-subsidy is a completely subterranean-type of thing.

Moreover, if you set up a scheme that is based on cross-subsidies, you then have to erect all kinds of very special barriers to make sure that the profits are not completed away in a monopoly market, and hence, not available to cross-subsidize the high-cost, low-volume markets. This has just been a persistent problem throughout regulation.

We feel that the air experience is not significantly different from the communications industry and other areas of transportation, and the cross-subsidy argument should be scrutinized carefully.

DEPENDENCE OF SMALL-TOWN SERVICE ON CROSS SUBSIDY

Senator KENNEDY. Are you working on the cross-subsidy question as well, to determine the magnitude of it? We have asked the airlines for **this kind of information and—**

Mr. BAKER. I would honestly have to say that we have not seen good data—at least I personally have not seen good data on the cross subsidies, and—

Senator KENNEDY. Is there any reason why you could not work with the DOT on that particular issue?

Mr. BAKER. We can use the same telephone system and so forth. And I will say quickly that the Department of Transportation has been concerned over a period of time with cross subsidies, and this is not a situation where I have been beating on their door and they have not been providing data. It is simply the fact that I have been doing other things and not perhaps doing what I should be doing. That completes the presentation.

Senator KENNEDY. I would like to know how you respond to a number of questions? United Air Lines appeared to indicate that 145 nonstop segments will be lost, that will not be served unless they have this kind of a cross-subsidy.

What kind of assurance can you give us that, if we have policies of freer entry and more price competition, that people in Binghamton are going to get any kind of air service? They are getting some now. They might even be getting it at a reasonable price.

United Air Lines indicates that all of these other Binghamton's around the country will not be served if we permit freer entry and lower prices. What do you say about that?

Mr. BAKER. Well, what I say is that clearly we want to look at the facts very carefully because, in fact, people are serving these thin markets which, by and large, are monopoly markets. They are doing so because they have applied for routes on which they thought they could make a profit and are serving on them. When they do not think they can make a profit they have sought to suspend, and in many cases been able to suspend.

Indeed, the Bar Harbor example is a situation which flows out of Northeast moving to suspend, someone else being brought in with sub-

stitute service which was relatively infrequent; and Bar Harbor Airways coming back and offering more frequent substitute service. There is a lot of flexibility on different kinds of equipment. You may find that a DC-9, for instance, is not economic on a market where a smaller plane would be. And anyone who has spent time, as I am sure you have and I have, flying around New England on Air New England and so forth, has seen a variety of smaller planes on routes that used to have larger planes. There is still service. And so I am not convinced that route security is the key to service in these markets.

Senator KENNEDY. How do you make a decision whether competition is going to be beneficial or whether it is going to be destructive?

We hear both sides. We are hearing from World Airways that it would be beneficial, and from United that it would be destructive. How are we going to really know, and how do you make your judgments?

Mr. BAKER. What is involved, what destructive competition involves is somebody pricing something down below his variable cost of providing it for the purpose of driving other people out. Now, as I indicated in my testimony, this is not a very frequent occurrence in the real, the unregulated world. We do not find in antitrust investigations that this occurs very often. It occurs much more frequently in a regulated environment because in order for it to work, new entry has to be held out. What you have to do is to cut your price down below your variable cost, which means you lose your shirt for awhile, and then somehow or other, to make it rational conduct, you have got to be able to get your shirt back. And the way you get your shirt back is by charging monopoly prices and not having anyone come in.

Now in the real, unregulated world, that does not happen. Other people come back in. In the regulated environment, I have seen situations where a carrier expected to knock someone off a route or put them in the corner, and then afterwards clean up at regulated price levels.

THE INTERLINE NETWORK AND OPEN COMPETITION

Senator KENNEDY. You are satisfied that this national network concept, which I think is almost the sacred cow of the airlines industry, would not be so altered as to create a jungle of difficulty for the traveling public, were we to go to a competitive situation.

Mr. BAKER. The national network is essentially a set of interchange arrangements, interchanges of baggage, and tickets, and facilities, and so forth, and there is no reason why that kind of interchange arrangement should not go forward. And in the hearings last week—and we will come back to this, I assume, in the hearings 2 weeks hence on antitrust immunities—there are all kinds of cooperative endeavors in order to make the system work that are perfectly fine from the antitrust standpoint. I do not see having freer entry in anyway affecting the national network concept. Less regulated carriers have an equal incentive to be able to interchange traffic and baggage.

Senator KENNEDY. What happens when you want to go from Boston to Detroit and you can only get as far as Binghamton? Are there not going to be gaps that are created in the system that are avoided now? We hear this talked about.

Mr. BAKER. Well, my colleague, Don Farmer, says you might rather get to Binghamton than Detroit anyway. But I do not know that that is the answer to the question.

Senator KENNEDY. The point is that perhaps gaps would be created in the network.

Mr. BAKER. It would seem to me that, to the extent that there is business to support a nonstop service from Boston to Detroit, it is going to be carried. To the extent that there is not business, then you are going to have to go via some intermediate point.

But the carrier, the Allegheny or whatever, that takes you to Binghamton or that takes you out of Boston, even if it does not go to Detroit, has every incentive to try to work up some way that you are going to get through service to Detroit, or Chicago, or Seattle. It would just encourage you to use a plane.

ANALOGY TO OTHER UNREGULATED INDUSTRIES

Senator KENNEDY. Are there any other kind of systems, analogous to the airline system, which are not regulated and yet which provide for interchangeability and integration? Are there such systems that work well?

Mr. BAKER. Yes, certainly. I will give you some examples. One is the whole bank credit card authorization and clearance system which is entirely private, entirely outside the regulatory realm and is going to an automatic online basis.

There are a variety of large, complicated systems which really do not involve this kind of regulation. And indeed, we threw into the testimony the example of a national hotel authority on the grounds that if you had for 30 years a central reservation system Government administered and so forth for hotel reservations, you would immediately be greeted with claims of chaos if it was suggested it should be abolished.

CAB STAFF STUDY ON ROUTE ENTRY, THE DOMESTIC ROUTE SYSTEM (1974)

Senator KENNEDY. Have you reviewed the staff proposal that was mentioned?

Mr. BAKER. I have looked at it, Senator. I cannot honestly say that I have reviewed it in detail. I can make some general comment.

Senator KENNEDY. As I understand it, in the first place, it requires a showing that the proposed operations will earn 12-percent rate of return on investment the first year. Second, it requires a showing that no incumbent is making less than 6 percent in that market. And third, it requires a showing that the new entrant will not divert more than 35 percent of the incumbent's traffic.

Now I suppose the question is the competitive effect of these requirements, and how they would ultimately translate into entry or price of travel in the airline industry.

Mr. BAKER. Well, clearly, they are highly restrictive and designed to reduce potential competition to a minimum; the requirement of earning 12 percent the first year really almost eliminates it, even where the market is being badly served. The new entrant has to set up stations, pay its promotional costs, to pay your promotional costs and still make this high return in the first year.

As one of the witnesses this morning, I think the representative from Continental Airlines, said that the 6-percent standard for every carrier

that has to be earning at least 6 percent on the market, could mean that you are supporting awful inefficiency where some carrier on the route was not earning it because they were an airborne equivalent of the telegraph company.

Senator KENNEDY. Of course, even the airlines that have been functioning have not been able to meet that requirement over the past 20 years.

Mr. BAKER. That is right. This is a route-by-route probability. And it just, you know it seems to me that, taken as a group, those three standards represent a very strong example of what I was talking about, an overconcern about the carriers on routes, about the welfare of the established group and not enough concern about the level of passenger convenience and the threat of new entry.

VIABILITY OF "REGULATION" BY ANTITRUST LAW

Senator KENNEDY. What is your reaction to what was said this morning. We heard from United Air Lines that substituting antitrust policy for regulation is just substituting litigation for regulation? It is not a very high endorsement for the antitrust division.

Mr. BAKER. It is a troublesome fact that antitrust cases often do take a long time, but they do not take longer than the route cases we have been talking about. And so, I do not feel it is a devastating criticism of antitrust. And second—to stress an important point that we will come back to this a couple weeks from now—when you get a decision from antitrust court, you are getting a decision by a forum that is completely outside the traditional bilateral relationships between the industry and the agency. You are out of that closed-circuit situation. And this is the thing, I think, that is most troublesome to people in the industry: That suddenly competitive policy questions are going to be made by judges, not by our regulators. I think that is their concern, not the delays and the uncertainties.

Senator KENNEDY. Mr. Kutzke?

Mr. KUTZKE. Thank you for this opportunity to appear. Mr. Snow expresses his regret that he could not be here to testify. If you would like, I will summarize Mr. Snow's testimony for the record. As expressed in Acting Secretary Barnum's statement to this subcommittee on February 6, 1975, the Department has been a strong advocate of improving the economic performance of the air transportation industry through increased reliance on competitive market forces. The economic performance of the industry must be improved if we are to restrain the rapidly escalating prices of air transportation and preserve the use of air transportation for large numbers of travelers. One vital aspect of this problem is entry and route awards. As a result of the Board's current route moratorium, the American consumer is not afforded the range of price and service options that an efficient market would provide and often must purchase more service than he wants or needs.

OPEN ENTRY WILL HOLD DOWN FARES

What we need, in terms of entry, is a two-pronged approach. First: We need to weigh the entry standard more heavily in favor of competition and efficiency. Second: We need a requirement that cases before

the Board be decided promptly. The Board must focus upon the needs of the public and the need for competition and innovation, and place less emphasis on the impact upon the existing carriers. Adoption of this approach would not necessarily lead to the addition of new carriers on each domestic route, nor even the addition of new carriers to the majority of domestic routes. Rather, the basic result of this new approach will be the introduction of potential competition to ensure that the domestic air markets operate efficiently and that the consumer obtains the price and service option of his choice. The threat of potential entry will police and discipline market behavior and ensure competitive market results. Liberalized entry will place firms on the edge of the market, able and ready to step into that market when the consumer is dissatisfied with the existing service and price. This dissatisfaction will attract entrants. But we think that the existing firms will act as intelligent businessmen, improve their efficiency, and keep their prices low enough to keep new firms out. This is the concept of threshold pricing. Prices are kept high enough to make reasonable profits, and low enough to keep new competition out. The consumer benefits.

Occasionally, an outsider will be able to enter the market because he will be an innovator and offer a new service, or be more efficient. Because of the costs associated with entry, however, he will be the exception to the rule. But the fear of his competition will spur the existing carriers to even greater efficiency and to their own innovation. We are confident the result will be a more efficient and innovative airline industry, providing the public with better service and more price and service options.

Even though this hearing deals with entry, it is important to consider entry in the context of price flexibility. As you will remember, Acting Secretary Barnum testified in favor of the need for more pricing flexibility before this subcommittee. One criticism of pricing flexibility is that only the strong firms will take advantage of it, and they will either drive prices up or, in the alternative, drive prices down temporarily to destroy competition, and then increase price when the competition is gone. Liberalized entry and the threat of potential entry is the regulator and enforcer which assures that pricing flexibility will not be misused. With liberalized entry, strong firms will not be able to drive the price up because of the threat of competition. With liberalized entry, strong firms will have little incentive to underprice their services to drive out old competitors because there is always the threat of new competitors. Thank you, Senator.

CROSS SUBSIDY: INSUBSTANTIAL AND INEFFICIENT

Senator KENNEDY. Thank you very much.

What is your interest in this cross-subsidy issue? What, if anything, are you doing?

Mr. KUTZKE. Our interest in it is to make sure that the transportation system functions effectively and efficiently. It has been our view that a transportation system which incorporates large elements of cross-subsidy is not operating as efficiently as it ought to, and not providing the types of service the market actually desires. We have examined at the cross-subsidy issue as part of our presentation in the domestic passenger fare investigation. Our research convinced us that

cross-subsidies were not efficient, and that there was very little cross-subsidy in the fare structure, in terms of the actual way the carriers actually operated. The final decision in the domestic passenger fare investigation sets a fare tapes which is very close to what is perceived to be the cross-taper of airline costs with distance, leaving very little room for cross-subsidy.

FAILURE OF CAB'S ATTEMPT TO CROSS-SUBSIDIZE LOCAL SERVICE CARRIERS IN LATE SIXTIES

Our view has been that carriers generally, in markets where they are supposed to be earning losses and cross-subsidizing these losses with other profitable services, have an incentive to reduce service to a minimum level consistent with minimizing losses. The Board, in its staff study of service to small communities, looked at the question of whether its route policy for local service carriers produced cross-subsidy dollars to finance low-density routes. The study found that, while there was a benefit to the public, in terms of expanding local service carrier opportunities, local service carriers were not earning cross-subsidy dollars in the new markets to subsidize low-density routes.

[In answer to an inquiry by the subcommittee staff, Mr. Kutzke identified the study referred to here as CAB, Bureau of Operating Rights, *Service to Small Communities* (March 1972), and recommended inclusion in the record of the following passage from pt. III, pp. 25-27, of that study. The passage referred to, follows:]

* * * * *

* * * The principal specific policy for achieving the seemingly contradictory goals of reducing subsidy and retaining service to small communities was cross-subsidization under the now abated route-strengthening program. This approach appeared promising in the high tide period of route cases in the middle and late sixties. Under the revenue sharing and ad hoc provisions of class rate IV, subsidy was declining, and applications to cease operations at small communities were at a low ebb. However, in retrospect, the route expansion program and the cross-subsidization of existing routes appear to be counterproductive. The route-strengthening policy has not resulted in discernable cross-subsidization for most of the locals. It has, in fact, put them into two distinct markets requiring two distinct types of operations and equipment. The one market clearly requires subsidization, while the other market is unable to provide sufficient funds for such subsidization.

If the more dense markets were open to local carriers on a monopoly basis, they might then have some chance to earn sufficient funds for cross-subsidization of marginal markets.¹ Many objections could be raised to such a policy of cross-subsidization. In the first place, such a policy merely shifts the burden of low-density loss points from Federal taxpayers to airline customers traveling on routes which generate the funds for subsidy. Second, higher air fares in monopoly markets will restrict the quantity of services demanded in these profitable areas and divert potential air passengers to competitive modes of travel.

Although the government may wish to change the allocation of economic resources, changing the allocation through cross-subsidization is an inefficient means, since the government has little assurance that its desired pattern of allocation will result from the actions of private firms. Cross-subsidization ties the amount of subsidized service to the level of profits in another market. There is no

¹ Monopoly in an air transportation market is a necessary but not a sufficient condition for cross-subsidization policies. The market must also be isolated from meaningful surface competition. Otherwise, an airline attempting to charge higher than a competitive fare would simply drive more passengers to surface modes.

assurance that this method will lead to the government's desired pattern of service.² Further, if such a policy of cross-subsidization were to work, there is reason to believe that carriers no longer dependent upon government subsidy payments would make every effort to shed their unprofitable routes and points of service in order to increase business profits. The incentive to perform loss services would be gone and they would retain such services only insofar as they were forced to do so. This would likely result in deteriorating service to small communities and demands for a new class of subsidized carriers more devoted to the provision of small community air services.

However, the local service carriers have not been moving into more dense, profitable routes on a monopoly basis. Rather, they are entering markets in competition with trunklines earning normal (currently below normal) profits. One need not assume predatory competitive practices to conclude that the amounts needed for extensive cross-subsidization of unprofitable routes will not be forthcoming from such markets. Since there is a taper in air fares, with higher per mile fares in short-haul markets served by local carriers and lower per mile fares in longer-haul markets of trunklines, a fare sufficient to generate revenues for cross-subsidization of low-density short-haul routes would yield abnormally high returns to the trunklines. This would also interfere with the relative pricing in long-haul markets not involving local service carriers. As a complementary policy to assist in low-loss situations, cross-subsidization can and will work. But as a solution to the long term problem of service to small communities, cross-subsidization is uneconomic and can make only a minimal contribution to the solution of the basic problems of air service to small communities.

* * * * *

AIRLINES' CLAIMS OF CROSS-SUBSIDY

Senator KENNEDY. Of course, there was clear testimony this morning from some of the airlines that the cross-subsidy still exist, and is a rather important aspect of this network of air transportation; this is certainly, the testimony of United Air Lines.

Mr. KUTZKE. Yes; what is uncertain about United's testimony—it is very interesting testimony—is that we do not know what kind of costing they were using in their description to you. Were they talking about the fare calculation methodology used the domestic passenger fare investigation? Were they talking about internal costing?

Senator KENNEDY. I thought they said variable costs.

Mr. KUTZKE. They said variable costs, but I do not know how they calculated variable costs. Are they using United's internal cost system, or are they using the kind of regulatory costing system the Board uses. Also, we do not know how important those markets are from the description given this morning. Are they markets that are operated on an entry-mileage basis, where the aircraft is being routed from one city to another for an operational purpose, or are they markets that even in a competitive system the carrier would desire to operate for some reason? What percentage of United total revenue passenger-miles were produced in those markets? They are also talking in terms of segments, but they certainly are not the most important segments in the United system.

CAB PROCEDURE ON ROUTE APPLICATIONS—"ROUTE MORATORIUM"

Senator KENNEDY. So, what is your feeling about whether those kind of routes would be abandoned under a competitive system?

² See Lucien Foldes, "Domestic Air Transport Policy," Part II, *Economica*, vol. XXVIII (August 1961), page 272.

Mr. KUTZKE. I think you would have to look at those on a segment-by-segment basis. It is quite possible that United might not be able to serve them, but it is possible another trunk carrier might.

Senator KENNEDY. What consideration should be given to an applicant who came before the CAB and indicated it can provide service at less cost to the traveling consumer? Should that be given a very high consideration, or a low consideration, or should it indeed be given any consideration? What do your studies show?

Mr. KUTZKE. Senator, we think that should be given important consideration, particularly for applicants who are offering a new type of service in the market, for example, a new type of shuttle service, a type of very high-density, turnaround service. All those things should be given consideration. Under existing Board procedure, there is not much opportunity to make a case for lower fares in a route case, because at the present time, all fares are calculated according to procedures used in the domestic passenger fare investigation. An applicant would not normally be filing a lower fare proposal. The Board has not indicated they are going to give decisional significance to that, and because of that, the carriers do not propose lower rates in route cases. They do not make them a key element of their service proposal.

Senator KENNEDY. What was your reaction? Was there really a moratorium for a couple of years, or are we just wrestling with words? And whatever you want to classify it, do you think it was legal or illegal?

Mr. KUTZKE. Well, you may wrestle with words, but the fact is, in the last 5 years, the Board simply has not been granting very many new route awards. Applications have been filed and the Board has not heard them, or they dismissed them on grounds which, in earlier cases, almost would have certainly gotten the carrier a hearing. North Central offered a list of such cases in its testimony this morning. These cases would almost certainly have been set for a hearing and new authorizations would have been granted to carriers. Our feeling is that a carrier that files an application with the Board has a right to get a speedy hearing on that application. It should be decided pro or con.

DESTRUCTIVE COMPETITION

Senator KENNEDY. You have important responsibilities, obviously, in the Department of Transportation system. Do you not think that if there were more route entries, that you might have destructive competition, and get a breakdown in the whole national network system?

Mr. KUTZKE. I do not think that would happen, Senator. At least, our information does not suggest it would happen. The economic studies that have been done of the industry do not suggest this is the type of industry which would produce destructive competition. The experience of commuter carriers suggests that there is little likelihood of destructive competition. In situations of freer entry, such as in California and in Texas, the results have not suggested that destructive competition has resulted. And, finally, the Board is still in place to monitor what is happening on routes and it can police any potential destructive competition.

Senator KENNEDY. Do you not have a responsibility, though, in terms of the development of automobile or bus, air, sea transportation,

rail; and how does all of that fit together with what we hear in terms of air transportation? If you recognize the importance of the development of an integrated system, perhaps we should not have air transportation in some areas, and people ought to be getting there by railroad or by bus, saving the public a good deal of money. How does all of that funnel through your office in coming up with an integrated system?

Mr. KUTZKE. It actually funnels through the Assistant Secretary for policy. He makes these balancing decisions. Basically, in looking at markets, we do try to see that there is a balanced transportation system in place. In looking at subsidy issues particularly, where you have communities, for example in New England, who have sought air service, DOT looked very hard at the alternate transportation systems available—buses and trains and the kind of interstate system was provided—in making a decision as to whether to recommend to the Board that these communities should receive subsidized air service.

Senator KENNEDY. I am going to yield to Mr. Breyer for just a few minutes for some questions, and I will be right back.

COURT CHALLENGE TO "ROUTE MORATORIUM"

Mr. BREYER. Has the Department of Transportation ever considered taking the Board to court on the route moratorium?

Mr. KUTZKE. No, sir. We have not. We have been in a number of CAB cases. We have not been in many domestic route cases recently. We just have not focused our efforts in that area. I understand there is at least one case pending in the court of appeals now dealing with this issue. I believe, it is the *San Diego-Denver* case. The Department of Justice will be representing the United States.

STUDIES ON CROSS-SUBSIDY

Mr. BREYER. I would like to get back to the question of cross-subsidy for a minute. Do you have studies on the cross-subsidy problem? Have you prepared any papers? It is a major argument, obviously, and we are trying to find out from the industry the extent to which routes if any are cross-subsidized. And, as you point out, the accounting problems are enormous. How do you figure it out?

The ultimate question was pretty clear. The ultimate question we would like to know is, if you did move to a more liberal entry system, a more liberal rate system, along some kind of zone reasonableness in pricing which I think you have advocated, what routes would be lost? Are there a lot of them? Will those people not get service? Where are they? How many are there?

Now, I think you and the Council of Economic Advisers believe there are not many that will not get service. Is that right?

Mr. KUTZKE. That is right.

Mr. BREYER. But is there a way that we can actually get into this problem, to make a sensible judgment about it? We have asked the ATA to produce data for us, and we have asked the airlines to do the same. Could you try to provide us with some information, some back-up information, to help us answer that question?

Mr. KUTZKE. We would be happy to submit the same materials to you that we have submitted in the domestic passenger fare investigation already and anything else that we have in-house.

Mr. BREYER. You might check and see if it would be all right, for example, to show your materials to the airlines; and perhaps we will try to ask them if it is all right to the same extent to show them your materials, so we can perhaps—

Mr. KUTZKE. I should say this. In the domestic passenger fare investigation, where you would have thought there would be a good hearing record on the cross-subsidy issue and evidence regarding what routes are being cross-subsidized, by which routes and by which carriers, there is very little hard factual information. Most of it comes by separating carrier costs into mileage blocks and then looking at some mileage blocks as supposedly providing cross-subsidy to other mileage blocks, there is very little on the markets themselves. In fact, I suspect that you would almost have to look at the traffic moving in each market and figure out independently whether that route could sustain a viable operation in conjunction with other routes.

Mr. BREYER. One thing that would help very much is, could you suggest questions we might ask the ATA and the carriers? We are trying to create a dialog that might actually end up with productive results. Do you think that is a feasible thing?

Mr. KUTZKE. It certainly is.

TRANSITION TO COMPETITION

Mr. BREYER. There is another question that I think honestly worries a lot of carriers, in the policies that you and the Justice Department have suggested. Are the new liberal entry policy and zone competition going to come about all at once, or is there going to be some kind of an interim period, if we are moving to a new world in the airline industry? Is it possible to work out transitional arrangements, so that people are not hurt too severely, people who have relied upon the old world? Have you gone into that at all?

Mr. KUTZKE. Yes; I will comment on that. First of all, in the passenger fare investigation, the Board for the first time imposed load factor standards. In recognition of the fact the carriers needed transition time to begin living with this new world, the Board permitted several years of transition. They established a 52½-percent load factor to give the carriers time to change. That standard is now 55 percent. Our original pricing flexibility proposal in the DPF1 was 15 percent above and below an average cost curve. We felt that the zone could be placed in operation immediately because it was within the range that reasonable movements of price could be expected, without causing dislocations.

Mr. BREYER. If there has been thought given to this transitional problem, we would certainly appreciate the benefit of whatever thought you have given to it.

Mr. KUTZKE. The notion of transition, of course, is ultimately dependent upon what kind of a legislative proposal we make.

Mr. BREYER. Yes, of course it is, and what I am really saying is, regardless of whether the system is a good one, a bad one, or an indif-

ferent once, people have relied on it, and they have built up a tremendous amount of investment on it. How can they be protected, or not hurt too badly?

Another question that I think concerns quite a number of people, and if Mr. Baker has any comments on these additions, I would appreciate them very much.

Mr. BAKER. I always feel free to volunteer, sir.

SAFETY AND COMPETITION

Mr. BREYER. Another issue that is very worrying to a number of people, and perhaps seriously so, is if we move to this more competitive world, what about airline safety? I know the argument is sometimes treated lightly, but I think there are people who are worried that, in this new world of, say, a hundred carriers, there might be such tremendous competition that inevitably, management would begin to skimp. And that would mean less safe airplanes. I think that was mentioned this morning, in fact, in Mr. de Voursney's testimony. It is a very interesting point, and an important one. Have you given thought to that?

Mr. KUTZKE. We do not have any doubt that the Federal Aviation Administration has adequate authority to police airline safety. Second, I think that the kinds of operations you are talking about are improbable. We are not talking about people operating on shoestrings. We are talking about entry by well-financed, soundly managed firms.

Mr. BREYER. Have you put the question to the Federal Aviation Agency? Have they been forced to think about the safety problems that might exist if we really were going to move to this real world?

Mr. KUTZKE. I do not know the extent they have studied the issue.

Mr. BREYER. Could you check on that?

Mr. KUTZKE. Certainly.

POSSIBILITY OF CHAOS

Mr. BREYER. Another thing that I think, again, is a serious problem that some people have brought up is, is it all going to be terribly confusing? Will it be possible to make reservations with a large number of airlines? Maybe some are going out of business tomorrow, and there are new ones coming in the next day. The competitive idea sounds all right on paper, and then you think, well, there are all these different airlines flying around. How do we get reservations? How do we know which ones are in business today? Is that a serious problem?

Mr. KUTZKE. Not in our judgment.

Mr. BREYER. You think that is not a serious problem? Why not?

Mr. KUTZKE. Either Mr. Baker or I can answer it. In our view, the firms that are going to be in the airline business are large, well-financed operations. The entry that we have had in the last couple of years demonstrates this. One such firm is Southwest Airlines in Texas. I do not know that anyone has ever suggested they are not a well-financed, well-managed, safe operation.

The last time the Board allowed a significant amount of entry in the industry was the certification of supplemental carriers. They

operate large aircraft, particularly the big supplementals. They operate as safely as any other carrier.

Mr. BAKER. I would like to amplify on that, from a sort of legal standpoint; and that is, I do not think anyone contemplates that the carriers are going to operate on what you might call a complete free-for-all basis. You do not have to have detailed economic regulation in order to impose upon a carrier various common carriage operations, if that is what you want. In other words, you can say, you have got to have tariffs, you have got to have schedules, you have got to fly people based on those tariffs, you have got to fly your schedules even if only one person shows up. And that, basically, would say that any consistent failure to perform common carriage types of obligations would be grounds for not allowing you to fly at all; and the notion that you have to tie together common carrier obligations to serve everyone in equal and nondiscriminatory terms with economic entry is just a mistake.

Mr. BREYER. All right.

I have nothing more, and I think we will ask for the last witness to come to the table, and then I think we will recess for a few minutes. Mr. James Gagnon, of the Airport Operators Council?

We will stand in recess for 5 minutes.

[A brief recess was taken.]

[The prepared statements submitted by Mr. Baker and Mr. Kutzke follow. A followup letter from DOT pertaining primarily to this day's hearing is also included.]

PREPARED STATEMENT OF DONALD I. BAKER

I am pleased to present the views of the Department of Justice on the nature and effects of regulation of routes and entry in the airline industry, and to offer some tentative proposals for reform.

Two weeks ago, Assistant Attorney General Kauper gave this subcommittee a broad overview of the problems associated with Federal economic regulation of the air transportation industry. He pointed out that route regulation actually has had a detrimental effect on the public by denying the American people the type and price of transportation services they could purchase in a free marketplace. My testimony will expand upon those observations as they relate to routes and entry.

At the outset, however, I want to make clear that these questions are inseparably intertwined with the question of airline pricing rules to be discussed next week. In other words, if the present fixed price system were liberalized, to allow carriers to raise or lower their prices, the threat of new entry would be an important factor in determining whether in fact those prices were lower rather than higher. Conversely, if entry were liberalized (as we believe it should be), but nothing were done about pricing, the traveling public would gain little in the way of greater benefits: having more competitors does not insure better competition for the public, if regulators (or statutes) prevent those competitors from competing. Thus, as we review the history of procompetitive policy in California and Texas we should firmly have in mind the fact that pricing flexibility has been combined with essentially open entry policy. The history of CAB entry regulation is familiar, but quite different.

The existing statutory standard has not required the Board to operate the way it has in fact operated. The Board must consider competition, among other things, and it has done so—always with an eye to the existing industry. The statutory standards should be revised to deal with this issue. Not only must the Board be required to give greater weight to the competitive process, but this will only prove meaningful if combined with measures that deprive the Board of authority to turn down a route and entry proposal on protectionist grounds. Stated another way, the problem has not been with the Board's authority, but

with its exercise of discretion. Any reform has got to look toward switching discretion from the Board to the managements of air carriers and new entrants.

Nobody contemplates that all entry regulation would be eliminated. We and the Administration recognize that it is important that those who fly do so in safe planes, and that they be flown by qualified crews. However, these particular factors are capable of being quite objective, so that entry can be tied to the necessary Federal Aviation Administration certificates. Beyond that, entry into common carrier fields must be tied to ability and willingness to meet common carrier obligations. In other words, a common carrier would be obliged to have published tariffs and schedules and to fly in accordance with them. Any sustained pattern of failure to comply would provide a basis for a finding that the carrier was in fact unfit.

We intend, whatever form our proposals ultimately take, to insure that air service will continue to be a highly dependable means of travel. Liberalized entry need not—and indeed is not likely to—lead to “fly by night” operators coming into the business. In this connection, it is worth realizing that the whole “common carrier” legal concept arose at common law in what was very often an “open entry” environment for such operations as stage coaching and innkeeping.

I. ADVERSE CONSEQUENCES OF ECONOMIC REGULATION

In enacting the Civil Aviation Act, predecessor to today's Federal Aviation Act, Congress in 1938 believe it was dealing with two problems. The first was the need to bring stability to the government-subsidized system of air mail carriers which had originated in the late twenties and had been regulated on a piecemeal basis since that time. The second was to encourage the development of the infant scheduled air transport industry in the chaotic economic conditions that characterized the Depression. Today, mail revenue has become a very small proportion of total airline revenues, and the major trunk carriers no longer receive subsidy. The airline industry has matured and attained a level of technological sophistication and size unimaginable at the time economic regulation was established. Today the short run economic prospects that confront the nation are not bright, but conditions are nowhere near the “chaotic and destructive” conditions that were perceived as threatening the very existence of commercial aviation in 1938.

Although the conditions that led to the institution of the economic regulation of airlines are now history, the regulatory system spawned by the Depression still is very much with us. Consequently, the discussion of the current need for regulation must center on an evaluation of what would happen to the aviation industry if regulation were substantially reduced.

The economic evidence accumulated over the past several years convincingly demonstrates that under regulation passengers have been compelled to pay higher air fares and suffer unresponsive service, and scarce capital, energy and other resources have been wasted by the airline industry through overinvestment in aircraft and excessive service competition.¹

In exercising the regulatory authority over routes granted to it by Congress, the CAB has restricted the number of carriers permitted to perform scheduled air service, and also has restricted the ability of those few authorized carriers to enter new markets. Today, the number of certificated trunklines is half as many as the 19 which existed in 1938, though the number of revenue passenger miles flown has increased 238 times since that year, and over 70 percent of the revenue passenger miles flown by the trunk carriers in 1972 were flown in markets in which only one or two carriers were certificated.² Carriers who already have route certificates can expect that additional entry into their markets will be restricted. It is not surprising, then, that there has been a lack of pricing competition in the airline industry, and several studies have demonstrated that these noncompetitive prices are higher than they would be in the absence of competition. Of course, the lack of price competition is aided and abetted by the CAB's regulation of prices, and the anticompetitive incentives built into the tariff mechanism. Regulatory protection from the threat of entry by carriers who could do a better job at a lower price is surely a major factor in the maintenance of high prices.

¹ For a more extensive discussion of the following points and the evidence related to them, see testimony of Assistant Attorney General Thomas E. Kauper before this subcommittee, Feb. 6, 1975.

² The Domestic Route System, CAB 1974, appendix A, table 10.

Perverse as it may seem, the existence of route regulation actually increases the incentive for airlines to engage in predatory pricing or other anticompetitive measures. An airline knows that if it manages to drive a competitor out of a market with regulated entry, it may obtain increased profits to cover earlier losses.

This observation leads to an important point: contrary to charges made by proponents of continued route regulation, it is not competition that leads to waste in the airline industry. Rather, waste results from the attempts of businessmen to fulfill their normal desire to compete in a regulatory environment which precludes meaningful entry and price competition. Consequently, airlines engage in capacity competition, give away alcoholic beverages, and offer other "frills" which probably would not be provided if free entry and price competition were permitted. Thus, regulation has not led to high industry profits; it has led to higher costs which dissipate the excess revenue generated by the industry's noncompetitive prices.

Excess capacity which may exist in markets where there is more than one carrier, result not from the existence of increased carrier entry and the resultant competition, but from the fact that the regulatory structure prevents carriers from competing in price and forces them to compete through the provision of services which might not be as important to passengers as a price cut. Intrastate carriers in California and Texas operating on a competitive, unregulated environment, have offered higher load factors and lower prices than route-regulated carriers.³

Supporters of the current regulatory scheme make the charge that without regulation of entry, service would be undependable. Experience, however, does not demonstrate that this would be the case. First, without regulation, the profit motive would return to its normal governing role: Businessmen would recognize that if they fail to provide dependable service, they soon lose their customers. Second, in the CAB's own New England service investigation, the Administrative Law Judge found that while individual air taxis which are not regulated by the Board might enter and leave particular markets, service continued to be provided by new operators, and the turnover on identity of firms providing that service did not inconvenience the public, as opposed to the carriers themselves.

It is not really all that surprising that private businesses not subject to economic regulation of entry and exit can provide a dependable, widespread service network. For instance, there is no Federal Hotel and Motel Administration, but the large chains do provide nationwide reservations so a traveler may arrange for lodging in a distant city and expect to find the hotel in business and his room awaiting him upon his arrival. But you can be assured, had a Motel Administration been established in the thirties, any attempt to abolish it today would be met by widely publicized fears of the collapse of the American economy due to the inability of business travelers to make dependable hotel and motel reservations.

Proponents of existing route regulation contend that without government regulation of entry and exit, our present air route system would severely contract, leaving numerous small communities without the air service they now enjoy under regulation. Whether this is likely or not is a highly complex issue, but it is a crucial one which must be resolved, because passengers on less heavily traveled routes should neither suffer unnecessarily in order to reform the system, nor receive hidden and quite expensive subsidies without an explicit and convincing justification.

This country's domestic air route system is a complicated, extensive network served by trunk air carriers, local service air carriers, intrastate air carriers, small carriers exempt from regulation under part 298 of the Board's regulation,⁴ supplemental carriers, and several other small specialist carriers regulated by the Board. There are approximately 817 airports in the United States which provide service by certificated airlines.⁵ Simple arithmetic indicates that there are thus over a half million domestic city-pairs⁶ in which airline travel is theoretically

³ Testimony of William A. Jordan before this subcommittee, Feb. 14, 1975, p. 33. The intrastate carriers also have experienced markedly lower costs. *Id.*

⁴ 14 CFR pt. 298.

⁵ Civil Aviation Research and Development Policy Study, Department of Transportation/National Aeronautics and Space Administration, 1971, supporting papers, p. 4-34.

⁶ A city-pair is a routing between two cities. It is more precise, though not as conventional, to refer to individual routings as airport pairs, thus reflecting actual passenger routings when more than one airport serves one city or one airport serves more than one city. Because traffic information is not usually available for airport pairs, the term city-pair is used in this testimony.

possible. But alternative transportation is available in many city-pairs, convenient air service is not available in many of them, and many of them simply do not have any passengers who wish to fly them. As a result, most air travel actually takes place over a very small percentage of these theoretical city-pair routings. As the Air Transport Association has stated earlier in these hearings, 30 percent of domestic traffic is produced in the 70 largest city-pairs, 40 percent in the 840 next largest, and another 30 percent in the remaining city-pairs.

Apart from basic supply and demand considerations, there are primarily three influences on the number of city-pairs which receive service: subsidy, cross-subsidy, and the advantages of an integrated route system. In order to examine the influence of regulation on the pattern of service, it is necessary to look at each of these factors.

Section 406 of the Federal Aviation Act empowers the Board to grant subsidy to air carriers, and 9 local service carriers and several Alaskan carriers presently receive subsidy of approximately \$70 million per year. This statutory provision would allow the Board to insure the provision of air service to remote communities even if there were no economic regulation of air carriers at all. There is considerable agreement that the present method of awarding subsidy is backward and inefficient,⁷ but the history of the airline subsidy program shows that the Congress can insure service to remote points if it wants to pay the price. The present low level of subsidy compared to the total air transportation system indicates that subsidy, though expensive, is not a staggering problem.

Some defenders of the status quo argue that if the government does not limit entry and exit, it will be unable to require air carriers to serve the bad markets with the good. Without government regulation, the argument goes, airlines would all serve exclusively the largest markets, and small markets would go unserved. In order to deal with these arguments, it is necessary to distinguish between the next two quite different factors which lead carriers to serve "bad" markets with the "good" ones: cross-subsidization and route system integration.

Each of these two factors allows an air carrier which serves more than a single city-pair to serve as part of that system city-pair which would not be served in isolation. System integration may allow this for a number of reasons: the small city-pairs may be one segment in a larger city pair, as when service from A to B is not economically viable, but service from A to B to C is viable. The smaller market may simply be "entry mileage" on the way to one larger market from another, or from a maintenance base. Or the incremental cost of adding a small city-pair to a given aircraft routing may be low because there is otherwise unusable aircraft time which can be used in that city-pair. This latter factor is important, because many city-pairs do not have enough traffic potential by themselves to use all the capacity generated by a modern aircraft used full time in that city-pair.⁸

These efficiencies from more extensive operations are offset by the increased costs of managing a complex and far-flung route network with diverse operational characteristics, so that above a very small minimum size, air carriers do not experience any substantial economies of scale.⁹ But where potential route system economies exist, they can result in increased service and lower cost to consumers, and the regulatory system should encourage operations which capitalize on them.

It seems clear, however, that route regulation is not necessary for the full exploitation of the advantages of route system integration. Without regulation, carriers have an incentive to be efficient and expand their business operations, and they can be expected to do so. Indeed, route certification decreases an air carrier's ability to adapt and expand its route system in response to changing conditions, and this inflexibility undoubtedly explains a substantial portion of the higher costs and prices which are associated with regulated air carriers.

The absence of economies of scale in the airline industry also indicates that addition of another city-pair to a carrier's route system does not always mean increased efficiency or lower costs. Costs can actually be increased by route systems which are unduly complex, do not allow efficient gathering of traffic, or require the operation of too many different aircraft types. Under regulation,

⁷ See, Service to Small Communities, CAB staff study, 1972; Eads: The Local Service Airline Experiment, 1972. The Board itself requested introduction of legislation in the 93d Congress which would have authorized it to conduct a limited experiment in procuring subsidized service on a competitive bidding contract basis.

⁸ See, Testimony of William A. Jordan, *supra*.

⁹ Testimony of Thomas Kauper, *supra*, pp. 15-17.

a carrier has incentives to keep inefficient routes on its system because if it drops them, the route authority might be hard to get back from the government, and another carrier might obtain a certificate for the route, making reentry even more difficult or impossible. The increased costs of retention of uneconomic routes because of regulation increases the overall level of air carrier costs, which may well decrease their ability to offer profitable service in smaller markets. Thus, the result of route regulation is to introduce costly rigidity which decreases, rather than increases, the air carriers' ability to exploit the economic efficiencies of an integrated route system.

Government regulation of market exit is often advocated as a means of preventing disruptive service terminations to small communities. There appears to be no evidence that free exit, subject to notice provisions, would create any serious inconvenience to the public. But more importantly, regulation of exit, rather than increasing the amount of service to small markets, probably decreases it. When air carriers are not free to leave markets which prove to be unprofitable, they will be more conservative in entering doubtful markets, and fewer of those markets will actually receive service.

In contrast to actual efficiencies from route system integration, cross-subsidy is an expensive, inequitable, and unreliable means of including service in lightly traveled city-pairs. Regulation of entry to extract monopoly profits from passengers on some routes so that those profits can theoretically be used to subsidize service to passengers on other routes is a sub rosa tax which Congress probably would not explicitly allow.

Finally, leaving aside the extreme undesirability of cross-subsidization through route regulation, there is considerable economic evidence that it simply does not work in the regulated airline system.¹⁰ Increased revenues resulting from restrictions on entry in highly traveled markets are utilized to support excessive service competition rather than to subsidize otherwise unprofitable markets. The inflated level of service and attendant costs thus make it more difficult for carriers to serve lightly traveled markets at all.

In summary, there is little to indicate that regulation brings air service to small communities which otherwise would not have service. Cross-subsidization is theoretically possible under route regulation, but it doesn't work and should not be attempted. Route system efficiencies, which are a real source of otherwise unavailable service, are more available without route regulation. Accordingly, we question the need for continuation of the present close regulation of individual routes.

While it is true that a liberalized entry policy may cause replacement of carriers serving particular markets, such an occurrence need not be detrimental to the public, or adversely affect the level of service to smaller communities which is now rendered by certificated carriers. For instance, Executive Airlines entered the Boston-Bar Harbor market in the summer of 1968 and provided substitute service for Northeast Airlines during the 4-month summer season. In 1970, Executive was ousted from the market by Bar Harbor Airways, another commuter carrier, after Bar Harbor had begun to offer year-round non-stop service between Boston and Bar Harbor. As a result, Bar Harbor received a level of service to Boston for in excess of that which it had been receiving. While Executive may have left the market because it was operating at a loss, the public was benefited by the substitution of a carrier willing to offer year round service responsive to the needs of that community. Hence, the basic reason for Executive's ouster was the superior service offered by Bar Harbor Airways, and not "destructive competition" resulting from free entry. If a CAB route proceeding were necessary, I suspect that Bar Harbor Airways would be still trying (or have long since given up trying) to get on the route; and Bar Harbor passengers would still be waiting for year-round non-stop service to Boston.

Improved and more responsive service is not the only public benefit from restoring the airline industry to the relatively "free entry" conditions it experiences when there is no extensive economic regulation. For years, studies have been noting that when entry into intrastate air transportation in California and Texas was relatively free of regulatory barriers to entry, intrastate air

¹⁰ Statement of Gary L. Seevers, and James C. Miller III, Council of Economic Advisers, Feb. 6, 1975; Statement of William Jordan, *supra*; G. Douglas and J. Miller, Regulation of Domestic Air Transport, pp. 97-103, 162, 174.

carriers offered dramatically lower prices than CAB-regulated carriers and made profits doing so.¹¹ Professor Jordan's testimony before this subcommittee last week indicates that the great fare differences between regulated and unregulated carriers are not freak results accounted for by peculiar factors other than economic regulation. If there were any reasons for these dramatic price differences other than regulation, surely they would have been demonstrated by now. The Board's response to this situation has been to allow its regulatees to parallel the intrastate routes of the low-price intrastate carriers, charging low prices to intrastate passengers and high prices to interstate passengers. The difference in price is not based on any peculiar route characteristic, just competition.

The airline industry, like any closed system, can use new blood. The evidence is clear that when new competitors are able to enter the airline industry, they bring with them new talent and new ideas in operations, marketing and service.

II. SUBSTANTIVE STATUTORY PROBLEMS

The substantive provisions of the Federal Aviation Act which govern entry are themselves the heart of the problem, for they provide the Board with vague guidance as to the policies it should follow and allow restriction of competition.

Under the Act, the Board is empowered to issue route certificates to applicants who are "fit, willing, and able" to perform the service they wish to provide, but such a certificate may only be granted if "such transportation is required by the public convenience and necessity;" otherwise the application is to be denied.¹² The Act also requires that the Board, in exercising its authority, must consider "competition to the extent necessary to assure the sound development of an air transportation system. . . ." ¹³ With directives this broad, it is not surprising that CAB regulation of the air transportation system exhibits a confusing pattern of "regulated competition" which has resulted in waste and high prices.

Through its power to issue certificates, and to subject them to "reasonable terms, conditions, and limitations" as required by the public interest,¹⁴ the CAB has wide discretion to determine the extent of competition in commercial aviation. The Board, however, was not left entirely free to adapt the domestic route structure to meet the changing conditions of the airline industry during its rapid growth from the passage of the Act in 1938 to the present.

First, Congress embodied in the Act a concept of "security of route." In general, the CAB may not revoke a certificate unless it finds an "intentional failure" by a carrier to comply with the Act or a Board order, and only if the carrier thereafter refuses to correct the failure after notice by the Board.¹⁵ Temporary suspensions, as opposed to revocations, may be ordered upon a mere finding that the "public convenience and necessity" so require.¹⁶ Any significant reduction in an existing carrier's operating authority could only come about through the permanent deletion of that carrier's authorization to serve a particular point, with the consequence that airlines and the Board look upon route certificates as important assets, giving holders the perpetual right to do business in a particular market. Carriers, though, may sometimes agree to suspend unprofitable routes, or two or more carriers may agree, if the Board approves, to reduce competition through mutual suspensions of authorities.

Second, the 1938 Civil Aviation Act "grandfathered" the operating rights which the then-existing 19 major carriers had under airmail contracts awarded in the late twenties and the thirties.¹⁷ These mail routes, having their genesis in the Hoover Administration, thus became the nucleus of the domestic route structure, with, for example, TWA and United being the major transcontinental carriers, and Eastern having the Eastern Seaboard routes.

¹¹ Testimony of William A. Jordan before this subcommittee, Feb. 14, 1975; Testimony of Gary Seevers and James C. Miller III before this subcommittee, Feb. 6, 1975.

¹² 49 U.S.C. sec. 1371(d).

¹³ 49 U.S.C. sec. 1302(d).

¹⁴ 49 U.S.C. sec. 1371(e)(1).

¹⁵ 49 U.S.C. sec. 1371(g).

¹⁶ *Id.* This power is rarely exercised without carrier acquiescence but the Board has been found empowered to suspend one carrier so as to grant service to another, though the incumbent desires to perform the service. *Western Airlines v CAB*, 495 F.2d 145 (D.C. Cir. 1974).

¹⁷ Civil Aeronautics Act of 1938, sec. 401(e)(1), 525 Stat. 973.

Third, applications for new route authority, or modifications to existing authority, can be granted only after notice and hearing,¹⁸ and under the Ashbacker doctrine,¹⁹ the Board must hold a full evidentiary hearing when there are multiple applications for the same authority. Thus, when a carrier seeks authority in an important market, it is certain to face the prospect of long, complex proceedings, with the possibility that the losing party will petition for judicial review.

Lastly, once a carrier is granted a certificate, it is free to use whatever equipment it wishes, or establish whatever schedules it pleases, as long as it operates a minimum amount of service.²⁰ As a result, carriers remain free to engage in schedule competition, though protected against new entry by the need for a potential entrant to get a certificate, and against rate competition by rate regulation.

In administering the authority thus granted it, the Board has developed an elaborate system of restrictions which prevent carriers from actually competing on routes where both have certificate authority. Certificates granted by the Board are of a "linear" nature in that they authorize service among city-pair markets with a terminal or terminals, sometimes several intermediate points, and another terminal or terminals on the other end. Airlines can operate among the various points on the routes by various combinations of nonstop, multistop, and connecting service. The Board, however, may condition these otherwise flexible route awards with several types of restrictions. By means of a single plane restriction, the Board may require that service between two points on a route not be by a single plane, but only by connecting flights. Thus, an airline having such a restriction may be put at a disadvantage because it must force passengers to change planes at the intermediate city while its competitor's passengers may stay on the same aircraft. The Board also may require carriers to make one or more intermediate stops, preventing nonstop service, and it may require a carrier travelling to a city to continue beyond that city to another destination. Such a "long-haul" restriction limits an airline's ability to provide schedule competition in high-density markets by forcing aircraft added to serve just the major city-pair to continue onward to the next destination.

In deciding whether to permit a carrier to enter a particular market, the CAB uses criteria which limit the ability of carriers to enter and compete with each other. The existence of restrictive standards means that procedural reform can have only a limited ability to increase the amount of competitive entry in the air-travel network. Procedural reform can insure that entrants are not discouraged by the prospect of delay in handling their applications, insure that they will be able to fully present their case, and enable them to meet claims raised by challengers. But even assuming good procedures, one can expect that the certification process, as presently constituted, will result in an unjustifiedly low amount of competition in the industry.

The first step the Board reaches in deciding whether the "public convenience and necessity" requires new competitive service, or the removal of a certificate restriction so as to permit more effective competition, is the decision of whether there is "room" for an additional carrier in the market. This consideration focuses on whether the current traffic or traffic in a forecast period would profitably support the additional service contemplated by the applicant. Particularly in a less-expansive economic climate, the Board also may look at the effect of new entry on existing carriers, that is, the amount of traffic which would be diverted from the existing carrier to the new entrant. Almost always, the issue of whether there is room for a new competitor becomes the key issue.

Once the decision is made to authorize entry, the next step is to select the carrier, if more than one carrier is proposing to serve the market. Such a decision is difficult, for many carriers are able to offer reasonably similar services. The Board may take into consideration the "service" benefits that may flow from a grant of new authority to a carrier, that is, the extent to which the addition of the route to the carrier's system will enable it to improve or increase service throughout its system, or offer more connecting flights or through plane service to the newly authorized market. However, carrier selection will often depend on the Board's desire to strengthen a particular carrier, by giving a financially weak carrier a profitable route, or its desire to minimize the amount of diversion from incumbent

¹⁸ 49 U.S.C. sec. 1371 (c).

¹⁹ *Ashbacker Radio Corp. v. FCC*, 326 U.S. 327 (1946).

²⁰ 49 U.S.C. sec. 1371 (e).

carriers, if the new service would siphon off connecting traffic from an incumbent carrier to other routes on the new entrant's system. Hence, the selection of the carrier to receive new authority may consciously or unconsciously depend on "political" factors involving the attitude of the Board toward a particular carrier and its management. As long as the Board has the discretion to choose among competing applicants on the basis of rather subjective criteria, such influences may remain regardless of the procedures involved.

The result of the Board's restrictive entry policies, coupled with the permanent nature of domestic route authority, has been the creation of a static route structure. With the exception of the recent certification of Air New England as a local service carrier, there has been no certification of a new domestic scheduled carrier since local service carriers were certificated following World War II. The only trunk carriers serving the public are those which received grandfather rights in 1938. What the Board seems to have done is to create and perpetuate a "tier" system of carriers with four levels. First are the large trunks, smaller trunks, the local service carriers, and on the bottom, the part 298 "commuter carriers."

The Board has resisted the entry of new groups into the aviation business, and Congress has sometimes seen fit to require the Board to certify new carriers. For instance, in 1962, Congress required the certification of supplemental carriers which engage in charter only service.²¹ Similarly, throughout the tremendous expansion of air travel since 1938, and the disappearance through merger of several smaller trunks, United, American, and Trans World remained the largest carriers, with Delta only recently edging out Eastern, the other of the Big Four carriers receiving grandfather rights in 1938.²²

Through Board-approved mergers, the number of trunk carriers has declined from 19 to 10, and with the addition of the 9 local-service carriers, the total number of significant carriers remains the same as it was in 1938. In 1972 the original 10 trunks carried approximately 92 percent of all revenue passenger miles, with the local service carriers having only about 8 percent of the traffic.²³ While the percentage of traffic carried by the Big Four has declined, concentration remains high. In 1938, these airlines carried 82.5 percent of all domestic revenue passenger miles, and by 1972 this amount had dropped to only 60.5 percent,²⁴ at a time when the total number of passenger miles flown increased from 476 million to over 114 billion.

The expansion of route authority within this tiered system has been ad hoc: while the Board has occasionally established formal priorities for hearing route cases,²⁵ it has never systematically examined the overall route system or followed a comprehensive plan in authorizing new authority. As a recent CAB study put it: "The only occasion upon which the Government has determined or influenced the development of the route system on other than an incremental basis was under the Hoover Administration mail contract program. . . ."²⁶

This situation is all the more unfortunate because change under the present system is slow and costly. The typical route proceeding, which may involve lengthy trial-type hearings, takes at least one to 2 years to process.²⁷ The CAB does not even permit a carrier to escape this restricted route network when it engages in charters, for the Board has limited carriers engaging in off-route charters, those not between city-pairs on the carrier's certificate, to a tiny percentage of the total revenue plane miles flown by the carrier in the calendar year.²⁸

The present inquiry in route proceedings into whether entry onto a specific route would be "economically viable" should be eliminated. Whatever the procedures or standards applied to this inquiry, it still amounts to a substitution of government decisionmaking for market processes in a way which inevitably to one degree or another brings unnecessary costs and inefficiencies which we cannot afford. The Board's Bureau of Operating Rights has recently proposed²⁹ that the Board require an advance forecast of profitability for all carriers in a market before a route application will be set for priority handling which in practice is

²¹ 49 U.S.C. secs. 401(e) (3), 401(n) (1), 417.

²² The Domestic Route System, CAB 1974, appendix A, table 1.

²³ Id., appendix A, table 1.

²⁴ Id. 100.

²⁵ For example, 14 CFR sec. 399.60.

²⁶ Domestic Route System, *supra*.

²⁷ Domestic Route System, *supra*.

²⁸ 14 CFR sec. 207.5

²⁹ The Domestic Route System, CAB 1974.

a necessary prerequisite to, if not complete assurance that, the application will be granted. This proposal represents a valiant attempt to rationalize a route investigation procedure on the part of the Board which in recent years has effectively eliminated new competitive route awards in an attempt to improve profitability.³⁰

The BOR's proposals no doubt would be quite damaging to competition and efficiency in the air transportation industry. But the BOR proposal only makes explicit and perhaps intensifies the undesirability of the Board's characteristic conduct under its substantive statutory standards.

The Board has very candidly admitted that under its procedural practices of the past few years, the vast bulk of new route applications have not even been set for hearing because of the Board's exclusive preoccupation with enhancing the profitability of existing carriers.³¹ This refusal even to hear cases raises serious questions under statutory procedural requirements. But the problem is far more serious than bad procedures. The Board's recent *de facto* moratorium on new route awards represents merely intensification of its characteristic use of a vague statutory mandate to extend unnecessary and costly protection to existing air carriers.

Whether service on a specific route is "required by the public convenience and necessity" is a similarly unnecessary inquiry in view of the economic characteristics of air transportation. Who needs to be protected from "unnecessary" service? Not consumers, who if given a choice will simply not pay for service they don't need. Not the Postal Service or the Treasury, for airmail and subsidized service are very small portions of the modern air transportation system, and route regulation for the entire system is not necessary for either of them to function efficiently. The answer is the existing certificated air carrier themselves, who naturally regard any new competition as "unnecessary." Government determinations of whether there is a need for service that a private air carrier proposes to offer on an unsubsidized basis are archaic, unnecessary and expensive.

What changes are necessary to narrow route regulation to reasonable scope? To begin with, procedural reform could improve, but not completely remedy, the problem. Route proceedings are extremely slow, when they take place at all, and the ability of innovators and competitors to present their case undoubtedly could be improved by procedural reform. If the substantive statutory standards were not narrowed along the lines indicated above, however, the improvements would be marginal, and in our view, insufficient. The regulator would still retain a broad and vague set of directives and standards, and would be able to make factual judgments with quite anticompetitive and harmful results without reversal by the courts.

There is a wide range of possibilities for narrowing the fact-finding discretion of the regulator. One of the most modest would be simply to add to the long list of public interest considerations in section 102 of the Act specific language about maintaining competition and efficiency in air transportation. The problem with this approach is that the vague and inclusive section 102 references to "encouragement and development," "promotion," and fostering of "sound economic conditions in" air transportation would remain, and the Board would at best have to balance past anticompetitive and inefficiency-producing interpretations of these provisions against the newer, narrower standards, with considerable deference still being accorded to its factual judgment.

It is not clear to us that this would represent even a marginal improvement over the present legal standards, because even under the existing Act, as under numerous other vague and inclusive regulatory statutes, the courts have required agencies to make specific findings on, and pay specific attention to, competitive consideration,³² along with other public interest considerations.

Another possibility would be to eliminate the rather vague statutory exhortations mentioned above and insert in their place a requirement to preserve competition and promote efficiency. This would be an improvement, but it simply asks the regulator to do what the Congress could do itself: examine the need for economic regulation of air routes, and decide how extensively it is to be applied.

³⁰ *Id.* 9, 150.

³¹ Domestic Route System, *supra*, pp. i-ii; CAB annual report to Congress, 1973, p. 4.

³² For example, *Gulf States Utility Co. v. Federal Power Commission*, 411 U.S. 747 (1973); *Federal Maritime Commission v. Svenska Amerika Linien*, 390 U.S. 238, 243-46 (1968); *Denver & R.G.W.R. Co. v. United States*, 387 U.S. 485, 492-93 (1967); *Northern Natural Gas Co. v. Federal Power Commission*, 399 F.2d 953, 958-61 D.C. Cir. (1968).

Still further marginal improvement could be achieved by changing the section 401 requirement that a route must be proved "required" by the public convenience and necessity to a requirement that it simply be proved "consistent" with the public convenience and necessity. This of course would be little improvement at all if there were no narrowing of the factual judgments the Board is allowed to make in finding anticompetitive regulation to be so "required" or "consistent." And even with such a narrowing along the lines suggested above, the difference would only be marginal, because in past cases, once the Board has passed the question of detrimental impact on other carriers, it has not imposed a very heavy burden on parties seeking to show that their service is "required." Instead, it frequently has found that the provision of new competitive service in itself constitutes such a need.³³

One last refinement to this phrase-by-phrase approach to improvement of the route provisions of the Act would be to specifically eliminate the Board's ability to limit entry in order to protect existing air carriers. This could take the form of a provision that the Board may not consider economic effects on other air carriers in acting on route applications, or a provision that route applications could be denied only if the Board found that the result would be a decline in the quantity or quality of service in the market. This kind of amendment, along with other narrowing of the standards and substantial procedural reform, would remove the biggest historical impediment to a competitive airline system, but it still would leave the Board with a fairly broad range of factual judgments to make, and accordingly would leave the possibility of characteristically protectionist decisions.

In our view, the solution should get back to basics, and insure that route regulation does not exceed the level which has been justified in the public interest, because even at its best, regulation is an intrinsically expensive, time-consuming, and unproductive exercise. Thus the best approach to reform of the entry provisions would be to allow carriers into the industry if they can demonstrate that they would operate the service they undertake in a safe and reliable manner. Protection of these essentially noneconomic interests would not seem to require detailed entry or exit control on specific city-pair routes.

PREPARED STATEMENT OF JOHN SNOW (SUBMITTED BY MR. KUTZKE)

Thank you for this opportunity to submit a statement for the record concerning the regulation of route awards and entry. I hope my statement will be of some assistance to your proceedings and I will be happy to answer any questions that you or the members of your subcommittee may have about the statement at a later date.

As expressed in Acting Secretary Barnum's statement to this subcommittee on February 6, 1975, the Department has been a strong advocate of improving the economic performance of the air transportation industry through the increased reliance on competitive market forces. The economic performance of the industry must be improved if we are to restrain the rapidly escalating prices of air transportation and preserve the use of air transportation for large numbers of travelers. One vital aspect of this problem is entry and route awards.

The present policy of the Board is restrictive in terms of certificating new trunk carriers. Under the Act of 1938, 16 domestic trunk carriers received operating certificates. No new certificates have been awarded since that time, and, in fact, because of mergers, there are now only 10 trunk carriers. The Board has allowed new carrier groups and classes of carriers, such as local service and supplemental carriers. But these types of carriers do not approach the trunks in terms of scope of operation or market penetration.

³³ See, for example, Northeast Airlines, et al., North Atlantic Route Case, 6 CAB 319, 325-326 (1945); IATA Traffic Conference Resolution, 6 CAB 639, 643-644 (1946); Florida Case, 6 CAB 765, 773-774 (1946); Hawaiian Case, 7 CAB 83, 103-104 (1946); Milwaukee-Chicago-New York Restriction Case, 11 CAB 310 330 (1950); IATA Agency Resolutions, 12 CAB 493, 508-509 (1951); Trans-Pacific Airlines, Ltd., Certificate Amendment, 12 CAB 900, 901 (1951); Southern Service to the West Case, Reopened, 18 CAB 790, 799-800 (1954); Reopened New York-Balboa Through-Service Proceeding, 20 CAB 106, 109 (1954); Denver Service Case, 22 CAB 1178, 1184, 1273 (1955); New York-Florida Case, 24 CAB 94, 99 (1956); Seaboard & Western Airlines, Mail Authorization, 29 CAB 49, 85 (1959). The Board's apparent departure from this attitude toward the values of competition in recent cases is currently being challenged in *Continental Airlines, Inc. v. CAB*, D.C. Cir. 74-1651.

The Board is also very restrictive with respect to route awards. During the past 5 years, the Civil Aeronautics Board has enforced a *de facto* route moratorium, pursuant to which it has virtually refused to set for hearing applications for new route authority and has generally denied applications for new competitive entry in cases already in progress.

The Federal Aviation Act grants the Board wide discretion in determining entry and route awards. This discretion has been inappropriately exercised to restrain entry and frustrate the operations of the market. Under the Act the Board is required to set applications for new route authority for public hearing and to dispose of all such applications "as speedily as possible" (Section 401 (c)). In spite of that mandate, few route applications have been set for hearing over the last 5 years. For example, the Board declined to set for hearing an application by North Central Airlines to provide first competitive service (with American Airlines) in the Boston-Detroit market and refused as well to hear an application by North Central to provide competitive service between Philadelphia and Milwaukee even though the two carriers authorized in that market had virtually eliminated nonstop service. The Board's rationale has been that the new service offered limited public benefits which were outweighed by the harm which competition would have on the entrenched carrier.

Under Board procedures applicants for operating authority are placed on the horns of a serious dilemma. In spite of the fact that the Board is required by law to hear all applications filed, the application often sits in the docket without any action taken unless the applicant also files a petition for expedited hearing. By a new regulation adopted in the fall of 1973, the Board now dismisses all applications which are the subject of such a petition for an expedited hearing upon denial of that petition. And the Board most always denies such petitions. Thus, a carrier has the grim choice of requesting expedited hearing, which will probably be dismissed, or having no action taken at all. As a result, the number of new route applications being filed has slowed to a mere trickle.

During the route moratorium, those cases already in progress have advanced slowly with final Board decision still pending in some cases originally instituted in the sixties, such as the additional service to Omaha and Des Moines case and the Reno-Portland/Seattle nonstop investigation. The Atlanta-Detroit/Cleveland and Cincinnati investigation was before the Board over 5 years (February 1969 to May 1974) before being decided, and its decision was based on an issue not in the case when initially filed—the national fuel shortage. The delay of the proceedings has cast a heavy burden upon the industry.

A few route cases have been decided during the moratorium period, but with the general result that applications for competitive route authority have been denied. In reaching these decisions the Board has placed little emphasis on competition and on the needs of the public for additional service. Instead, it has placed major emphasis on the financial impact which the services of new carriers would have on the incumbent carriers. For example, the Board denied an application for competitive service in the San Diego-Denver market on the ground that such an award would cause revenue diversion from Western Air Lines. (That case is now before the U.S. Court of Appeals.) Even where the Board does consider competition, it views it in the narrow perspective of service adequacy in terms of capacity, rather than the potential for lower prices. Potential applicants have learned that it is bad strategy to base their case on lower prices. Failure of the Board to consider lower prices is a serious deficiency in the Board's decision making process.

The result of Board's entry policy is that the American consumer is not afforded the range of price and service options that an efficient market would provide and often must purchase more service than he wants or needs.

What we need in terms of entry is a 2-pronged approach. First we need to weigh the entry standard more heavily in favor of competition and efficiency. Second, we need a requirement that cases before the Board be decided promptly. The Board must focus upon the needs of the public and the need for competition and innovation, and place less emphasis on the impact upon the existing carrier.

Adoption of this approach would not necessarily lead to the addition of new carriers on each domestic route nor even the addition of new carriers to the majority of domestic routes. Rather the basic result of this new approach will be the introduction of potential competition to ensure that the domestic air markets operate efficiently and that the consumer obtains the price and service option of his choice. The threat of potential entry will police and discipline market behavior and ensure competitive market results. Liberalized entry will place firms

on the edge of the market, able and ready to step into that market when the consumer is dissatisfied with the existing service and price. This dissatisfaction will attract entrants. But we think that the existing firms will act as an intelligent businessman, improve their efficiency and keep their prices low enough to keep new firms out. This is the concept of threshold pricing. Prices are kept high enough to make reasonable profits, and low enough to keep new competition out. The consumer benefits. Occasionally, an outsider will be able to enter the market because he will be an innovator and offer a new service or be more efficient. Because of the costs associated with entry, however, he will be the exception to the rule, but the fear of his presence will spur the existing carriers to even greater efficiency and to their own innovation. We are confident the result will be a more efficient and innovative airline industry, providing the public with better service and more price-service options.

Even though this hearing deals with entry, it is important to consider entry in the context of price flexibility. As you will remember, Acting Secretary Barnum testified in favor of the need for more pricing flexibility before this subcommittee. One criticism of pricing flexibility is that only the strong firms will take advantage of it, and they will either drive the prices up or, in the alternative, drive the prices down temporarily to destroy competition, and then increase the price when the competition is gone. Liberalized entry and the threat of potential entry is the regulator and the enforcer which assures that pricing flexibility will not be misused. With liberalized entry, the strong firms will not be able to drive the price up because of the threat of competition. With liberalized entry, the strong firms will have little incentive to underprice their services to drive out old competitors, because there is always the threat of new competition.

There is another aspect of this connection between pricing flexibility and entry that must be mentioned. Many would ask why in an industry where there is existing overcapacity, and where the predictions indicate that future growth will be somewhat slower than in the past, do we want more entry. We have already indicated that we do not believe that easing entry will necessarily increase the number of carriers in the market. But the essential answer to this question is that liberalized entry is the other side of the coin to increased pricing flexibility. Because prices are rigid, competition has concentrated on service and overcapacity has been the result. Only through pricing flexibility will there be a reduction in this overcapacity, and as indicated above, pricing flexibility without liberalized entry would not achieve the full benefits of regulatory change.

In summary, the Board has pursued a restrictive entry and route award policy which has denied the American consumer the full benefits of an efficient air industry that offers him the range of services and prices that it should. We intend to introduce legislation which will turn the focus of the Board away from the protection of existing carriers to the interests of competition, innovation, and the consumer.

OFFICE OF THE SECRETARY OF TRANSPORTATION,
Washington, D.C., Apr. 25, 1975.

HON. EDWARD M. KENNEDY,
U.S. Senate,
Washington, D.C.

DEAR SENATOR KENNEDY: In the course of our participation in the recent hearings held by your subcommittee on economic regulation of aviation, a number of questions were asked of the Department which required supplementary written response. Our answers to your questions follow.

Question 1. What is the Department's response to the subcommittee's recent staff report on minimum charter air fares?

Answer. Among the procedural suggestions which the staff report discusses are: providing public hearings prior to major Department policy decisions; allowing for public comment in the context of a rulemaking proceeding; establishing an agency official to represent consumer views; requiring that all meetings be held in public; making public transcripts of meetings; providing Federal Register notices of all meetings and hearings; appointing a Department official to decide which decisions require consumer representation or public hearings; institutionalizing methods for soliciting public and consumer views; establishing mechanisms for monitoring compliance with agency orders designed to protect the public; and providing consumer-oriented, in-house antitrust expertise to insure that agency action will further the policies behind antitrust laws.

The general objective of these procedural suggestions—to protect consumer interests from the “vagaries of ‘informal’ decisionmaking”—are worthy, especially if one accepts the premise that those views are not already adequately considered. The suggestions are innovative. Taken as a group, they represent a departure from traditional policymaking approaches. We believe that some are already effectively being accomplished, others would be difficult or infeasible to administer, and still others have merit and are being discussed, in some form, within the Department.

I think the record of this Department's performance confirms that we are mindful of consumer interests. As public officials, we act in accordance with what we believe to be the public interest. In determining public interest, we recognize the importance of creating a strong national transportation system, of providing an economic climate in which carriers can provide quality service at reasonable profits, of healthy competition, and of consumer needs for safe, reliable, energy-efficient and low-cost transportation. We do not believe that the present system of transport regulations is adequately meeting these objectives and, therefore, we have sought to bring about changes in regulatory policy. The basic thrust of our approach has been to allow wider scope for the operation of market forces in transportation.

Of necessity, in fulfilling our statutory charge, we must take into consideration not only consumer interest but also other national policies which require a healthy transportation system, energy conservation, travel safety, and environmental quality, among other goals. Weighing these sometimes competing considerations is a challenging process.

Reasonable men may differ in judging the degree of our success. But any implication that consumer views are not among the most important of those factors considered in making policy in the Department would not square with the facts.

In general, we believe the administrative burdens of opening to public hearings all Department policy decisions or of requiring that all meetings be public would outweigh the benefits. Allowing public comment in the context of rule-making proceedings, or having periodic policy conferences which are open to all interested parties, on the other hand, may have more merit. At present, the Department has an official specifically charged with representation of consumer interests who is involved in many, although certainly not all, policy decisions. Public comments are always welcomed and are considered. Department officials speak to industry and consumer groups and meet with each to explain our programs and to solicit comments. The interchange is productive.

To further ensure adequate representation of consumer views, the Department is effecting some changes along lines of the subcommittee staff's suggestions. With respect to determining the level of compensatory charter rates, for example, the Department has developed proposed criteria which have been circulated to other interested executive branch agencies, air carriers and consumer groups. The Department invited interested consumer groups, carriers and other government agencies to participate in an open meeting at the Department on April 11 to discuss our proposed criteria. A member of your staff and consumer representatives were present. To increase consideration of consumer views in our decisionmaking process, we recently published a notice in the Federal Register asking for comments on various specific areas of the present review of international aviation policy. The Department intends to hold a hearing on that review when the work is further along and we welcome consumer, government agency, Congressional and carrier comments throughout the review. These comments will be placed in a public docket. We are also considering holding an open meeting to discuss proposed aviation regulatory reform legislation.

We will continue to review our procedures for public participation and will continue to make every effort to ensure that consumer views are fully considered in all the Department's policy decisions.

Question 2. Does the Department have any studies on the extent to which cross-subsidy exists in the current air system?

Answer. As part of our preparation for the Domestic Passenger Fare Investigation (DPFI), the Department extensively studied air carrier operations in many markets and examined carrier load factors, relevant carrier costs and levels of operations. On the basis of that examination, the Department concluded that carriers are continuously adjusting operations in individual markets so as to achieve a “break-even” level (including profit), but some relatively few city-pair markets probably do not cover fully allocated costs (including profits).

However in those markets, the carriers normally covered variable costs, thus making a positive contribution to the carriers' overall operation.

Markets which make a positive contribution will undoubtedly be retained by the carrier, regardless of the level of federal regulation. The existing CAB accounting system and the costing procedures developed in the DPFI do not recognize that many markets cover the relevant carrier costs if revenue is properly assigned. The analysis which I have described was not embodied in a formal report, study or memorandum.

A theoretical discussion of the cross-subsidy issue was offered as part of the Department's direct case in phase 9 of the DPFI and a copy of our presentation is included. This theoretical analysis was confirmed by our review of carrier costs, load factors and market data.

Other studies of the cross-subsidy issue have been made. They include "Economic Regulation of Domestic Air Transportation: Theory and Policy," by George W. Douglas and James C. Miller III (see, e.g., pp. 53-54, 87-94); "The Local Service Airline Experiment," by George Eads; and the CAB staff study of "Service to Small Communities." With the exception of United's testimony at your hearings, we are not aware of any evidence on cross-subsidy offered by the carriers, although carriers often say there is cross-subsidy. We have not examined the raw data on which United's study is based, but would be pleased to do so if we had access to the data, and make the results of our analysis available to you.

Practical experience over the last 10 years suggests that there is little if any real cross-subsidy in the domestic trunk system. Trunk carriers have been withdrawing from markets which they do not consider economic. Most of these markets are now served either by local service carriers or commuter air carriers. In recent years, trunk carriers have not sought to eliminate service in many markets, even in unprofitable years. This provides some valuable evidence that they do not perceive these markets as uneconomic.

Question 3. If we move to more liberal entry and pricing, what routes will be affected? How many are there? Where are they? Will people on those routes get service?

Answer. Every route may be affected to some extent. Service should increase on some routes and decrease on certain other routes. In some few cases, carriers may suspend service, in which event local service or commuter carriers would probably institute service. In a few cases, direct subsidies from the local communities might be necessary to insure continued service. In some instances, alternate forms of transportation may become relatively more attractive.

We expect that service will be rationalized on grounds of economic justification and that carriers will not serve routes on which they cannot cover their variable costs. It is not possible to do a route-by-route analysis indicating which low-density routes would be eliminated without specific carrier cost and revenue data for the routes in question.

Question 4. Can we submit questions on cross subsidy which the subcommittee could address to the ATA and carriers?

Answer. Our General Counsel's office has already provided certain questions for your staff. One reason for the difficulty in assessing the extent to which one route supposedly subsidizes another route is that it depends upon which accounting system is used. Also, accounting systems do not properly measure the economic costs. Each trunk carrier should be requested to identify both profitable and unprofitable routes, the routes they claim are cross subsidized, and the accounting methods used to arrive at the conclusion.

Question 5. What comments do we have on problems of transition to liberalized entry and pricing? How can established carriers be protected or not hurt too badly?

Answer. Transition will depend upon the extent of deregulation. Phased transition is being discussed. If the industry were to be totally deregulated (which the Administration has not advocated), a transition period would certainly be required.

The airline industry has shown considerable ability to adapt to changing conditions and to meet competitive service innovations. We expect that they will prove similarly resilient and that, far from being injured, their overall economic health will improve as the result of our proposals.

Question 6. Will airline safety be affected by increased competition?

Answer. Regardless of the degree of regulatory reform we propose, we do not have any intention of permitting any deterioration in aviation safety. The Department considers that supervision of aircraft safety standards should be entirely independent of economic regulation. The FAA will continue to maintain high standards. We have discussed the matter of airline safety within the Office of the Secretary and with the FAA. Many changes in the Act which would improve Board procedures and encourage the Board to foster more competition would not require any changes in the existing FAA safety programs or underlying statutes. On the other hand, if complete deregulation of air carriers were envisioned, some statutory changes in the FAA safety authority would be required. As a practical matter, if a number of new carriers were authorized to enter, the FAA workload would be increased in the short run as the carriers went through necessary steps to secure the requisite safety authority from the FAA. Also, the FAA would almost certainly have to increase its inspection activities to ensure that each new carrier was meeting all applicable safety standards. Inspection would be particularly important for carriers that do not appear to have the requisite financial backing to mount sound economic operations.

You are aware that there are a number of carriers which do not operate pursuant to CAB authority which are also required to meet the same safety standards as CAB-regulated carriers. These include Pacific Southwest Airlines in California and Southwest Airlines in Texas. The FAA resources necessary to meet the requirements for increased safety supervision which would accompany any regulatory reform proposal will depend on the specific proposal. We do not anticipate a large increase in FAA safety staff, absent complete deregulation. We will not permit any diminution in strict enforcement of safety standards.

In addition, a number of questions were submitted by Senator Thurmond. Our response to those questions follow.

Question 7. Are you aware of any reliable figures, from any source, which will enable the subcommittee to get some idea on the extent to which price determines the consumer's choice between airlines, trains, buses, or some other public transportation?

Answer. For the most part, the studies which have been completed regarding the effect of price (or other factors) and the choice of transportation mode have not been conclusive or reliable. The primary reason for this is the lack of information which describes how many people are traveling by all of the available transportation modes in individual city-pair markets. There have been several studies completed in particular markets which do provide some insight. These studies show that the sensitivity of mode choice to price is very much dependent upon the purpose of the trip, its distance and the socioeconomic status of the traveler. For example, business travelers are far less sensitive to price than are individuals traveling for recreation purposes. Similarly, higher income people exhibit less concern about trip cost than do lower income travelers. Frequency of service is also an important factor, especially for the business traveler. Additionally, the comparative trip times, including both time spent on the line-haul part of the trip and the time needed to get to and from the terminals, affect an individual's choice of travel mode. The sensitivity of modal choice to any of these factors is further affected by the range of choice which the traveler has in choosing among competing modes. The greater the competition, the more sensitive is the individual's decision with respect to price.

Question 8. (a) What percentage of tourist travel in the United States is by means of passenger aircraft? (b) What percentage of tourist travel in California is by means of passenger aircraft? (c) In Texas?

Answer. Statistics from the 1970 U.S. Census indicate that approximately 7 percent of personal trips for nonbusiness purposes of 100 miles or greater in length are made by air. Of all such trips having at least one end in California, some 14 percent are made by air. This latter figure includes travel leaving or entering California, subject to CAB-regulated rates, and travel within California subject to the lower PUC rates. If it is assumed that trips entering or leaving California have percentages of travelers using air transportation similar to those reported by the U.S. Census for the nation as a whole, then the overall 14 percent figure may suggest that one reason for the higher percentage of California air travel is the lower PUC rates. The similar figure for Texas is 7.5 percent.

Question 9. What costs enter into the consumer's decision to elect air travel over some other method of transportation? Compare the percentages among Los Angeles-Oakland, Los Angeles-San Jose (where somewhat lower fares are in effect), and Boston-Washington or Montreal-Toronto.

Answer. 1970 statistics on intermetropolitan travel between the San Francisco Bay Area and other cities show the following:

	Percent trip ¹ by—		
	Air	Rail/bus	Auto
San Francisco Bay Area-Los Angeles.....	36.2	1.2	62.6
San Francisco Bay Area-San Diego.....	42.4	1.8	55.7

¹ Total trips, business and nonbusiness.

Results from the Northeast Corridor Study on 1968 intercity travel show the following distribution of nonbusiness person trips (exclusive of rail trips):

	Percent of nonbusiness person trips by ¹		
	Air	Bus	Highway
New York-Boston.....	23	6	70
New York-Washington, D.C.....	16	15	69
Boston-Washington, D.C.....	60	5	35
Philadelphia-Boston.....	43	6	51

¹ Excludes trips by rail. Therefore, each of these entries would somewhat lower if rail trips were included.

Additional Northeast Corridor Study on 1968 intercity travel shows the following distribution of total person trips for given city pairs:

	Percent of total person trips by			
	Air	Bus	Highway	Rail
New York-Boston.....	46	7	42	5
New York-Washington.....	36	10	45	9
Boston-Washington.....	51	4	42	3
Philadelphia-Boston.....	34	3	61	2

The above statistics do not come from directly comparable surveys which may account for the rather high air travel levels on the East coast as compared to California. Further, it is important to understand that there are major differences in the transportation environment between the Northeast and the San Francisco-Southern California corridor. California is more auto oriented, with far higher levels of automobile ownership per capita. Also, auto travel between Boston and Washington is both much more expensive, with many toll roads and bridges over the route, and slower, inasmuch as the traveler has to pass around the New York metropolitan area. These factors may explain the high percentage of air travel in the Northeast despite its high cost relative to the California corridor.

Question 10. To my way of thinking, the traveling consumer in this Country would be better off if he had more choices. Present regulations permit airlines to compete with each other in terms of quality—that is, they can offer better food, more food, better liquor, prettier stewardesses, or more frequent flights in more modern aircraft, etc., but that entry restrictions and rate setting virtually eliminate price competition. I would prefer to be able to fly from here to Columbia or Charleston for \$10 or \$15 less, doing without some of these frills. As one who is supposed to speak for consumers, do you think this is an uncommon preference?

Answer. Not at all. We agree that many consumers would prefer, and would benefit from, price competition as well as service competition. As you know, several airlines have recently received approval for “no-frills” service from the CAB, a concept which we support. In addition, we are preparing legislation to end some of the current practices which may tend to prevent price competition. The success of the “no-frills” fare experiment may provide some indication of consumer preferences in support of our view.

Question 11. Do you think the consumer would be better off if the CAB were empowered to regulate all aspects of commercial aviation—or do you think the consumer would be better off if free competition were expanded, thus allowing potentially cheaper and more efficient carriers to offer their services over a certain route?

Answer. We think that more reliance on the free enterprise system and more competition are preferable to expanding the powers of the CAB. Encouraging the Board to regulate all aspects of commercial aviation would benefit neither consumers nor the airlines themselves.

Question 12. How do you evaluate the effectiveness of the Office of Consumer Advocacy within the Civil Aeronautics Board?

Answer. Its establishment was an encouraging sign. In addition, the Board should be commended for a number of other recent actions, such as ending its unofficial moratorium on route awards and expanding consumer options by approving "no-frills" fares. Nevertheless, while such steps are clearly desirable, they do not get to the heart of the problem—too much regulation and too little competition.

Question 13. Do you feel that the authorizing legislation now on the books for the CAB fails to give it enough power to insure the traveling public of adequate service at reasonable prices, that it forces the Board to exercise powers which actually work to the detriment of those goals, or do you feel that current law is just right, but could be administered better?

Answer. We believe that the CAB, and its authorizing legislation, served well when an umbrella of federal protection was needed to promote the development of a new industry. However, now that the airline industry is mature, we believe that the authorizing legislation should be changed so as to provide less regulation and more competition. We are preparing legislative proposals to do so.

We appreciate the subcommittee's interest in these areas and its courtesy to our witnesses and staff. If we may be of further assistance, please let us know.

Sincerely,

JOHN W. SNOW,
*Acting Assistant Secretary for
Congressional and Intergovernmental Affairs.*

Mr. SUSMAN. The subcommittee will come to order.

Senator Kennedy will return in a moment, and perhaps Mr. Gagnon, you would commence your prepared testimony.

Our last witness represents the Airport Operators Council, an association of all major American airports. Mr. Gagnon is the general manager of the Louisville and Jefferson Air Board in Louisville, Ky., and has had a wide range of experience in the aviation industry.

Perhaps you will begin by introducing your associates.

STATEMENT OF JAMES GAGNON, CHAIRMAN, AD HOC COMMITTEE ON AIR SERVICE, AIRPORT OPERATORS COUNCIL INTERNATIONAL, ACCOMPANIED BY KENNEDY HELM, COUNSEL; BARRY S. CRAIG, DIRECTOR OF AVIATION, GREATER CINCINNATI AIRPORT; MARSHALL P. ARNOLD, DIRECTOR OF ECONOMIC PROGRAMS, LOUISVILLE AND JEFFERSON COUNTY AIR BOARD

Mr. GAGNON. I would like to do that, Mr. Chairman. On my left is Mr. Kennedy Helm who is counsel to the air board. On my right is Mr. Barry Craig who is a member of my air service committee of the AOCI, and on his right is Mr. Marshall Arnold who is a member of my staff in Louisville.

It is in the capacity as chairman of the ad hoc committee on air service of the Airport Operators Council that I come here today. In

this capacity I offer the following testimony to the Subcommittee on Administrative Practices and Procedures of the Senate Judiciary Committee.

We appreciate the invitation to testify before this subcommittee. It is most gratifying to see Congress expressing such timely concern for the current status of air transportation regulation in this country.

In October 1974, the AOCI membership, at its annual business meeting, adopted a resolution that: (1) Requests and urges the Civil Aeronautics Board to rededicate its efforts in the spirit and intent of the Federal Aviation Act of 1958, as amended, to further develop the domestic air transportation system in the public interest; (2) resolves that the Civil Aeronautics Board should immediately reinstate the judicial and evidentiary processes contained in its rules of practice in economic proceedings, involving the potential authorization of new, altered and/or competitive air services; and, (3) directs the AOCI ad hoc air service committee to prepare and implement a program involving the entire domestic membership in an effort to bring to the attention of Congress that the public convenience and necessity for adequate air services can no longer be met by continuation of the moratorium on air route proceedings.

This action was taken after the AOCI air service committee, based upon careful study, reached several firm conclusions relative to the public interest in air transportation matters.

"ROUTE MORATORIUM"

First, the Civil Aeronautics Board has for the past 5 years maintained a moratorium on airline route strengthening and community air service improvements.

The Board has concentrated almost entirely on regulatory and developmental responsibilities on improving the profitability and economic strength of the scheduled airlines, setting aside virtually every other public interest consideration.

Secondly, the moratorium is in clear conflict with the law and the intent of Congress.

A concentration on carrier interests ignores every other consideration mandated by Congress as being in the public interest, and in accordance with the public convenience and necessity.

A moratorium also clearly contravenes the requirement under the law that applications for new or amended air service certificates or for improved public air service are required to be set down for public hearing and to be decided as speedily as possible.

Lastly, the moratorium has had a major adverse impact on the public interest.

It is our firm conviction that the moratorium has been a major contributor to rising unit costs for the airlines, repeated fare increases, reduced competition, reduced public service, ex parte decisions regarding excess competition, and route master planning that usurps the Board's statutory authority and responsibilities.

Further adverse consequences may be identified as follows: an unhealthy dependence by the airlines on the CAB, stifling carrier initiative, efficiency, and discipline; abandonment of route strengthening

as a means for economic benefit to carriers and cities alike; an end to carrier and Board effort to seek out and develop new market potentials; and almost complete disregard of the needs of the cities of America for air service improvements and related economic strengthening.

The Board's concentration on and accommodation to the financial health of the carriers has produced milestone profit results for the industry. It has done more than return the carriers to profitability, it has returned them to an alltime record in profitability. And this result was achieved in the face of record high fuel prices, record high wage levels and record high costs in virtually every other category in an airline operation.

We do not propose the abolition of the CAB, the transfer of its functions or the deregulation of the industry. From 1938 to 1970, under the aegis of the Civil Aeronautics Board, this Nation has produced the finest civil air transportation system in the world.

We can only say, however, that had the policies of the last 5 years prevailed during the first 33 years, we would scarcely have progressed beyond the DC-3 era. In this circumstance we have and will present some specific suggestions for returning the Board to its responsibilities for enlightened regulation. The Board has, over the years, generally been regarded as one of the best administrative agencies in our system of government. We believe our objectives and our proposals are designed to help ensure that it achieve its full potential.

The Board of Directors of AOCI, meeting in San Diego in October of last year, reviewed the extensive work and analysis of its air service committee and completely endorsed the committee's recommendation that AOCI seek congressional support for an immediate and complete termination of the Civil Aeronautics Board's moratorium. Pursuant to that action, the board of directors directed its air service committee to prepare and implement a program to that end.

Among the air service committee's recommendations on which the board of directors' action was premised were: That the CAB should lift its moratorium, immediately and totally; that the CAB also launch investigations looking toward the elimination of unnecessary public service restrictions in airline certificates; the more effective use of existing air carrier authority, some of which has lain dormant for many years; and the possibility of transferring a carrier's unused or poorly used operating authority to a carrier with more incentive and aptitude for its more effective use.

CAB STAFF STUDY ON ROUTE ENTRY POLICY: THE DOMESTIC ROUTE SYSTEM

Work went forward by the air service committee toward further definition, refinement, and implementation of these objectives. However, on January 3, 1975, the air service committee received a copy of a study by the Bureau of Operating Rights of the Civil Aeronautics Board which was released New Year's Eve, 1974. The study was entitled "The Domestic Route System: Analysis and Policy Recommendations," a staff study by the Bureau of Operating Rights, October 1974.

A superficial glance at the study suggested that the Bureau's staff was recommending a termination of the moratorium and a full re-

sumption of the Board's route and service developmental responsibilities. Such a proposal would have lent substantial impetus to the recommendations of the air service committee, and eased significantly its burden. Further examination of the study, however, gave strong indication that the BOR staff might be striving for the exact opposite results, that is, a further solidifying of the moratorium.

That strong possibility made it urgently incumbent upon the air service committee to determine as precisely as possible the full impact that the Bureau's recommendations could have on the moratorium and on the interests of the population clusters represented by AOCI. Since the study, the first of its type released by the Board's staff, was some 2 years or so in the process of development and was extremely broad in its scope and implications, it required a substantial amount of time for evaluation.

As a product of our assessment, one fact can be stated without any equivocation. If the staff recommendations were to be implemented by the CAB, the moratorium would effectively become permanent Board policy.

It therefore became alarmingly clear to the subcommittee that the Bureau of Operating Rights staff proposals would violate each of the AOCI public service objectives enumerated; and this was the unanimous conclusion of the air service committee meeting in Phoenix in January after a comprehensive review of the Bureau's study and the objectives of AOCI.

Further, and on the basis of this comprehensive review and evaluation, specific statements of position and specific legislative recommendations were unanimously adopted by the air service committee and forwarded to the Board of Directors of AOCI with a recommendation for its approval at its meeting scheduled for February 20, 1975.

In the discussion of the Bureau of Operating Rights staff study that follows, the views expressed are those resulting from the unanimous conclusions reached by the air service committee in consequence of its extensive evaluation of the study. The essence of this discussion is contained in the recommendations which, as stated, have been forwarded to the Board of Directors of AOCI for consideration and approval.

The study conducted by the Bureau of Operating Rights formalizes as future policy of the CAB, the route moratorium which has been in effect since 1970. Generally, the proposed rules create a circumstance which prevents the CAB from proceeding on a case-by-case basis by establishing certain economic obstacles, or standards, designed to block any requirement for regulatory action. In effect, the standards proposed in the study preclude all other considerations with regard to the determination as to who should be certificated to provide service in a market. They prevent certification in markets that need the service with no incumbent authority or, more importantly, in the markets where nonstop authority exists, but no service is provided.

A prejudgment of such issues by the Bureau of Operating Rights by proposing this technique strongly suggests that the Board members themselves should be precluded from assessing and deciding service improvement proposals under the public interest guidelines set down by Congress.

CAB PROCEDURE FOR ROUTE APPLICATIONS

At this point, Mr. Chairman, I would like to invite your attention to this flow chart. We have taken the recommendations of the Bureau of Operating Rights.

Senator KENNEDY. Why don't you hold it up again.

[See flow chart as inserted here.]

Mr. GAGNON. We have taken the recommendations of the Bureau of Operating Rights and attempted to structure them in a flow diagram relative to the criteria, or standards as they are called, for service application. Just a glance indicates how complicated this process can be. We are deeply concerned that the criteria and so-called standards depicted here are not only expensive and time-consuming, but they are virtually unattainable.

One particular area through this chart indicates that by the time you have done all of these things, if it were possible to do them, there is one opportunity, a last opportunity for the Board to set aside the whole process before you reach the hearing opportunity. This scarcely conforms in any respect.

Senator KENNEDY. How would you simplify that?

Mr. GAGNON. Simplify this, sir?

Senator KENNEDY. Yes, sir.

Mr. GAGNON. We would leave the hearing process the way it is, which takes it from this point to this point and around all of these criteria, which are rather like a clearinghouse of ideas, and back over to this point, which is the hearing process. That hearing process is one that has been established over time and has been quite efficient over time. All we are trying to do is get that hearing process to unstick itself and start moving.

Now this scarcely conforms in any respect to the intent of Congress. It is the Board members themselves in whom the public trust has been vested by the Congress, and by Presidential appointment confirmed by the Senate. It is the individual members who bear the burden and the privilege of decisional responsibility with respect to the ultimate issues of public convenience and necessity and the need for changes in operating authority.

The industry, all carriers, and the public are entitled to the Board members' fair consideration of air service improvement proposals and to the full exercise of their responsibilities within the spirit and the explicit criteria of the law under which they are granted the right and the duty to function. The members can neither be prevented nor protected from the exercise of this responsibility.

Senator KENNEDY. Are you satisfied that the Board has the resources to hold these hearings, for all qualified meritorious applicants?

Mr. GAGNON. Yes, I am. They have a policy of procedure by which they have set in the past, distant past to be sure, priorities, but they certainly have the mechanism for setting applications for hearings and consolidating applications and hearings.

Senator KENNEDY. How can you really regulate the number of hearings, the quality of the hearings? You have to give quite extensive discretion, do you not, to the Board in these areas? Or do you think that you can draw up sufficient guidelines to insure that legitimate applicants get a reaction or a response by the Board in the form of a hearing?

LEGISLATIVE PROPOSALS

Mr. GAGNON. We have suggested seven legislative initiatives, Senator, and we are suggesting that the law needs a little bit of fine tuning. Some of the things we are suggesting as legislative initiatives, to be sure, might be able to be taken into regulatory policy. But there is no assurance that that regulatory policy will be consistent in its application. We need some legislation and some regulatory authority for all seasons. We need it (the CAB) to have a regulatory system that works in good times as well as bad times. So we feel that enlightened regulation can develop the commercial air transportation industry as the primary mass transportation means for intercity travel. It is obvious to us that this capacity is present within the existing regulatory framework. The first step called for is to place the operating authority in the hands of the air carriers fit, willing and able to provide the service. We need specific direction from Congress to the CAB to move forward.

The air service committee in January unanimously proposed to the AOCI Board of Directors that AOCI support seven key legislative amendments to the Federal Aviation Act of 1958, as amended. The amendments are designed to emphasize, in specific terms, the intent of Congress with respect to the need for continuing development and improvement of the air route structure and the public air services of this country, and to ensure that the language of the Federal Aviation Act permits no misunderstanding or misinterpretation of Congressional policy and intent in these matters. It is our belief that the basic data contained in the Bureau's study supports our recommended legislative initiatives completely.

Three of the key legislative recommendations are as follows:

First, amend or supplement the existing statutory provisions to require prompt and expeditious hearing for any application for new or improved air service in a market in which at least one of the two cities principally affected, and at least one certificated air carrier, request such a priority hearing.

Two, amend or supplement the existing statutory provisions to provide that nonstop authority which is not exercised for 1 year will be presumed to be abandoned. At any time thereafter, the authority to provide such service should be granted to any carrier fit, willing, and able to exercise the authority, upon application of any party in interest.

And, to amend or supplement the existing statutory provisions to require the award of new competitive authority wherever it can be shown that the carriers' operations in the market will produce reasonable results. This proposed amendment is predicted upon the demonstrated fact that competition develops traffic, improves service, lowers fares, and lowers unit costs by expanding service and promoting efficiency, all for the public benefit.

In conclusion, it should be emphasized that the present economic condition of the industry or the country should not influence the design of regulatory policies which must necessarily look forward to a future period in which such circumstances will no longer prevail. A positive regulatory program will prove effective for the industry in good times as well as in bad times. Decisions made today will effect the industry for many years to come.

The regulatory environment should be one that permits, stimulates and directs substantial growth in our air transport industry, the growth that is so vital to the achievement and maintenance of maximum efficiency. It is from this achievement that so many fare, traffic, service, and technological benefits have historically flowed. When these occur, they provide substantial stimuli to the national economy through expansion of employment in the airlines, the manufacturing companies, airports and all other air transport related industries. This has been summary testimony. We do have written testimony on file with the subcommittee.

Thank you.

Senator KENNEDY. We want to acknowledge in the record your full testimony. Of course, it will be made a part of the record, and it is really enormously comprehensive, very responsive to the interests of this subcommittee. I think it entailed a great deal of work. We just want you to know that it is going to be of great value to our subcommittee, and I think to the Congress, generally.

Many of these specific recommendations, in terms of amendments to the Federal Aviation Act and, of course, legislative proposals, should go through the Commerce Committee. We are going to bring those to their attention and we are working closely with the Commerce Committee and others, on the amendments to the Administrative Procedures Act.

But this is an enormously constructive document, very thoughtful and comprehensive. All of your organization and those that support your organization ought to understand it. It is really a very constructive piece of work.

Let me just touch on a few areas. As I understand it, you mentioned that a more liberal entry policy could mean a more efficient kind of air transportation system.

Mr. GAGNON. Yes.

FREE ENTRY AND AIRPORT MANAGEMENT

Senator KENNEDY. Now, what is going to happen to all of your operators when you get fly-by-night operations coming into business, trying to rent space in the various airports, trying to set up various gates and all of the rest, operators that may be here today and gone tomorrow.

What is this going to mean, in terms of the basic kind of management problems that your people are facing in running many of the airports and facilities in the country? Are you not concerned about this?

We heard Professor Jordan indicate that there might be 100 to 200 new airlines in a deregulated industry. Is it not going to be a nightmare for any of your people to try and make a decision as to who is legitimate, who is not? And space, how can you deal with that problem. Are you not concerned? Are you not a lot better off just dealing with these major trunklines that you have known and worked with for some period of years, and know exactly what to expect from? You know that they are secure, that the CAB is not going to let them get in too bad a shape. Does not this make your life a lot easier and less complex?

Mr. GAGNON. Senator, let me first say that our position, with respect to free entry, is one in which we say that regulated free entry is a possibility. We do not advocate a permissive and chaotic approach to entry. Your question also indicates to me that we already have, to some degree, perhaps, what is in your mind, in many cities and on many segments, shorter segments, we have larger airlines, both regional and trunklines backing away from frequencies and conveniences in scheduling that would constitute real quality service. This is inviting other levels of operators in, not nearly so sophisticated, not nearly so deeply capitalized. These people operate within the published standards of the FAA, which is essentially the watchdog of airworthiness. And they come to us and say we would like to do these things. From my part, from my own personal experience, we are eager to have these people make the attempt.

We have heard today, for instance, that North Central, I believe, started with a couple of Cessna's many, many years ago. I still personally believe that this is a viable approach, that our third-level industry has started that way. We do have one now. It will be a recognized and honored third level of carrier in the immediate future. There are a lot of them. A lot of them go broke.

As yet, the CAB has not regulated this area of carrier. But speaking as an airport operator, we do not see the proliferation of those who really want to compete and can compete financially having a great problem with getting the job done at airports.

ADEQUACY OF FACILITIES AT "SECONDARY" AIRPORTS

Senator KENNEDY. Let us assume, for example, World Airways were to get certification to fly across the country, serving secondary rather than primary airports. Do you think adequate facilities exist in most of the major market areas to be able to provide services for the people, in terms of transportation, and parking, and counter space, as well as other airport space.

Mr. GAGNON. Senator, I heard that testimony and I have devoted, I guess, most of my adult life to this industry. I have never heard of a secondary airport. Now, he may be using very loosely a term that he is not too familiar with. Any airport that supports, on a scheduled basis, regular transportation, commercial transportation, has to be a certificated airport under the law. Now, he may be referring to smaller airports, smaller airports, yes. I think that there are some good potentials for smaller airports, excellent potentials for smaller airports. I know that on our board of directors there is a particular situation where there is a smaller airport operator who has some scheduled service, but the scheduled service is at a time of day and at a frequency that really is not very cost beneficial to that community.

CAB PROCEDURE FOR ROUTE APPLICATIONS

Senator KENNEDY. You outlined some of the procedures requiring the CAB to hold hearings and reach decisions when the applicant requests priority of hearings. Could that not be abused?

Could the CAB not be inundated with various applicants, which apply for priority of hearings. We heard the request for certification to fly to the Moon, which was given as an example of possible abuses.

Mr. GAGNON. Well, sir, I can only just make some sort of conjectural approach to that. We have discussed it to some degree.

I would think that the CAB has, perhaps, to expand its staff a bit to prepare this material, and they may have to establish some regional facilities in order that evidence can be gathered. This may be necessary. There is a great backlog.

Senator KENNEDY. I suppose it would be reasonable to think that if you had an expeditious handling of any of the requests, that you could have a summary dismissal of any of these requests with the reasons for it. That would be the best way to handle it. If it is a spurious kind of application, you can dismiss it quickly, easily, with a brief explanation, and at least have the issue resolved, rather than having these inordinate delays. I suppose that is what we are talking about.

Mr. GAGNON. This is a question that we would like to make further input to. We have not discussed it on the subcommittee, but we feel that under the quoted policy, I believe it is 399.60, that the Board does have authority to set priorities and to establish standards for hearing applications.

That is fine on the one hand. We think that probably has to have some change. We would like to suggest, officially suggest to the Board, the methods of doing that. We recognize their legal right to do these things, to set priorities, to set standards. But this is a standard we feel cannot occur, the standard set forth as a recommendation of policy in the Bureau of Operating Rights analysis of the domestic route system just cannot occur. It is a stone wall as far as we are concerned to applications.

FREE ENTRY AND SMALL-TOWN SERVICE

Senator KENNEDY. You do not think that the policy which you have talked about this afternoon is going to adversely affect the integrated air transportation system in such a way that it could bring rather serious hardships to the people that you represent?

Mr. GAGNON. What, sir?

Senator KENNEDY. That freer entry system.

Mr. GAGNON. No, sir. No indeed. This free entry, and what we call a use-it-or-lose-it policy here, we believe, will adjust the system of various carriers operating today to a very beneficial extent; that there may be some opportunities for new carriers to come into markets that already are established for them. They will have, if they can keep the pace they will have, probably, a monopoly opportunity for a while. They will have an opportunity to build a market. We do not see the free entry as a result of Board approval as causing the airports or those kinds of facilities in the national airport system any problems whatsoever.

DESCRIPTION OF AOCI

Senator KENNEDY. How many people do you represent in your organization?

Mr. GAGNON. My individual organization, or in AOCI. Speaking as AOCI, we represent 186 cities, counties, States, and other regional organizations, which, in turn, accounts for approximately 60 percent of the U.S. population. Our airports, in 1974, also accounted for approximately 90 percent of the enplaned passengers in that year. So we have some very substantial public interest base in these matters.

Senator KENNEDY. Thank you very much for your very helpful testimony.

Mr. GAGNON. Thank you.

Senator KENNEDY. We would like to feel that we could stay in touch with you as we move through the course of these hearings. I want to thank you and your associates very much.

The subcommittee stands in recess until 9 o'clock, tomorrow morning.

[Whereupon, at 4 p.m., the subcommittee adjourned, to reconvene at 9 a.m. the next day.]

[The prepared statement of Mr. Gagnon follows:]

SUMMARY OF PREPARED STATEMENT OF JAMES GAGNON

My name is James Gagnon. I am general manager and chief executive officer of the Louisville and Jefferson County Air Board, Louisville, Kentucky. I am chairman of the ad hoc committee on air service of the Airport Operators Council International. It is in this latter capacity that I offer the following testimony to the Subcommittee on Administrative Practice and Procedure of the Senate Judiciary Committee. We appreciate the opportunity to testify before this subcommittee. It is most gratifying to see Congress expressing such timely concern for the current status of air transportation regulation in this country.

In October, 1974, the AOCI membership, at its annual business meeting, adopted a resolution that:

(1) requests and urges the Civil Aeronautics Board to rededicate its efforts in the spirit and intent of the Federal Aviation Act of 1958, as amended, to further develop the domestic air transportation system in the public interest;

(2) resolves that the Civil Aeronautics Board should immediately reinstate the judicial and evidentiary processes contained in its Rules of Practice in Economic Proceedings, involving the potential authorization of new, altered and/or competitive air services; and

(3) directs the AOCI ad hoc air service committee to prepare and implement a program involving the entire domestic membership in an effort to bring to the attention of Congress that the public convenience and necessity for adequate air services can no longer be met by continuation of the moratorium on air route proceedings.

This action was taken after the AOCI air service committee, based upon careful study, reached several firm conclusions relative to the public interest in air transportation matters.

THE CIVIL AERONAUTICS BOARD HAS FOR THE PAST 5 YEARS MAINTAINED A MORATORIUM ON AIRLINE ROUTE STRENGTHENING AND COMMUNITY AIR SERVICE IMPROVEMENTS

The Board has concentrated almost its entire regulatory and developmental responsibilities on improving the profitability and economic strength of the scheduled airlines, setting aside virtually every other public interest consideration.

THE MORATORIUM IS IN CLEAR CONFLICT WITH THE LAW AND THE INTENT OF CONGRESS

A concentration on carrier interests ignores every other consideration mandated by Congress as being "in the public interest" and "in accordance with the public convenience and necessity."

A moratorium also clearly contravenes the requirement under the law that applications for new or amended air service certificates or for improved public air service are required to be set down for public hearing and to be decided as speedily as possible.

THE MORATORIUM HAS A MAJOR ADVERSE IMPACT ON THE PUBLIC INTEREST

It is our firm conviction that the moratorium has been a major contributor to: 1) rising unit costs for the airlines; 2) repeated fare increases; 3) reduced competition; 4) reduced public service; 5) ex parte decisions regarding excess

competition; and 6) route master planning that usurps the Board's statutory authority and responsibilities. Further adverse consequences may be identified as follows: a) an unhealthy dependence by the airlines on the CAB stifling carrier initiative, efficiency and discipline; b) abandonment of route strengthening as a means for economic benefit to carriers and cities alike; c) an end to carrier and Board effort to seek out and develop new market potentials; and d) almost complete disregard of the needs of the cities of America for air service improvements and related economic strengthening.

The Board's concentration on and accommodation to the financial health of the carriers has produced milestone profit results for the industry. It has done more than return the carriers to profitability, it has returned them to an all-time record in profitability. And this result was achieved in the face of record high fuel prices, record high wage levels and record high costs in virtually every other category in an airline operation.

We do not propose the abolition of the CAB, the transfer of its functions or the deregulation of the industry. From 1938 to 1970, under the aegis of the Civil Aeronautics Board, this nation has produced the finest civil air transportation system in the world. We can only say, however, that had the policies of the last 5 years prevailed during the first 33 years, we would scarcely have progressed beyond the DC-3 era. In this circumstance we have and will present some specific suggestions for returning the Board to its responsibilities for enlightened regulation. The Board has, over the years, generally been regarded as one of the best administrative agencies in our system of government. We believe our objectives and our proposals are designed to help insure that it achieve its full potential.

The Board of Directors of AOCL, meeting in San Diego in October of last year, reviewed the extensive work and analysis of its air service committee and completely endorsed the committee's recommendation that AOCL seek Congressional support for an immediate and complete termination of the Civil Aeronautics Board's moratorium. Pursuant to that action the Board of Directors directed its air service committee to "prepare and implement a program" to that end.

Among the air service committee's recommendations on which the Board of Directors' action was premised were:

That the CAB should lift its moratorium, immediately and totally;

That the CAB also launch investigations looking toward:

the elimination of unnecessary public service restrictions in airline certificates;

the more effective use of existing air carrier authority, some of which has lain dormant for many years; and

the possibility of transferring a carrier's unused or poorly used operating authority to a carrier with more incentive and aptitude for its more effective use.

Work went forward by the air service committee toward further definition, refinement and implementation of these objectives. On January 3, 1975, however, the air service committee received a copy of a study by the Bureau of Operating Rights of the Civil Aeronautics Board which was released New Year's Eve, 1974. The study was entitled: The Domestic Route System: Analysis and Policy Recommendations, a staff study by the Bureau of Operating Rights, October 1974.

A superficial glance at the study suggested that the Bureau's staff was recommending a termination of the moratorium and a full resumption of the Board's route and service developmental responsibilities. Such a proposal would have lent substantial impetus to the recommendations of the air service committee, and eased significantly its burden. Further examination of the study, however, gave strong indication that the BOR staff might be striving for the exact opposite results, i.e., a further solidifying of the moratorium.

That strong possibility made it urgently incumbent upon the air service committee to determine as precisely as possible the full impact that the Bureau's recommendations could have on the moratorium and on the interests of the population clusters represented by AOCL. Since the study, the first of its type released by the Board's staff, was some two years or so in the process of development and was extremely broad in its scope and implications, it required a substantial amount of time for evaluation.

As a product of our assessment, one fact can be stated without any equivocation: If the staff recommendations were to be implemented by the CAB, the moratorium would effectively become permanent Board policy. If therefore became alarmingly clear to the committee that the BOR staff proposals would vio-

late each of the AOCI public service objectives enumerated; and this was the unanimous conclusion of the air service committee meeting in Phoenix in January after a comprehensive review of the Bureau's study and the objectives of AOCI.

Further, and on the basis of this comprehensive review and evaluation, specific statements of position and specific legislative recommendations were unanimously adopted by the air service committee and forwarded to the Board of Directors of AOCI with a recommendation for its approval at its meeting scheduled for February 20, 1975.

In the discussion of the BOR staff study that follows, the views expressed are those resulting from the unanimous conclusions reached by the air service committee in consequence of its extensive evaluation of the study. The essence of this discussion is contained in the recommendations which, as stated, have been forwarded to the Board of Directors of AOCI for consideration and approval.

AIR SERVICE COMMITTEE EVALUATION, BUREAU STUDY: "THE DOMESTIC ROUTE SYSTEM: ANALYSIS AND POLICY RECOMMENDATIONS"

The study conducted by the Bureau of Operating Rights formalizes, as future policy of the CAB, the route moratorium which has been in effect since 1970. Generally, the proposed rules create a circumstance which prevents the CAB from proceeding on a case-by-case basis by establishing certain economic obstacles (standards) designed to block any requirement for regulatory action. In effect, the standards proposed in the study preclude all other considerations with regard to the determination as to who should be certificated to provide service in a market. They prevent certification in markets that need the service with no incumbent authority or, more importantly, in the markets where nonstop authority exists, but no service is provided.

A prejudgment of such issues by the Bureau of Operating Rights by proposing this technique strongly suggests that the Board members themselves should be precluded from assessing and deciding service improvement proposals under the public interest guidelines set down by Congress. This scarcely conforms in any respect to the intent of Congress. It is the Board members themselves in whom the public trust has been vested by the Congress, and by Presidential appointment confirmed by the Senate. It is the individual members who bear the burden and the privilege of decisional responsibility with respect to the ultimate issues of public convenience and necessity and the need for changes in operating authority. The industry (all carriers) and the public are entitled to the Board members' fair consideration of air service improvement proposals and to the full exercise of their responsibilities within the spirit and the explicit criteria of the law under which they are granted the right and the duty to function. The members can neither be prevented nor protected from the exercise of this responsibility.

Recommendations

Enlightened regulation can develop the commercial air transport industry as the primary mass transportation means for intercity travel. It is obvious to us that this capacity is present within the existing regulatory framework. The first step called for is to place the operating authority in the hands of the air carriers fit, willing and able to provide the service. We need specific direction from Congress to the CAB to move forward.

The air service committee in January unanimously proposed to the AOCI board of directors that OACI support seven key legislative amendments to the Federal Aviation Act. The amendments are designed to emphasize, in specific terms, the intent of Congress with respect to the need for continuing development and improvement of the air route structure and the public air services of this country, and to insure that the language of the Federal Aviation Act permits no misunderstanding or misinterpretation of Congressional policy and intent in these matters. It is our belief that the basic data contained in the Bureau's study supports our recommended legislative initiatives completely.

Three of the key legislative recommendations are:

- (1) Amend or supplement the existing statutory provisions to require prompt and expeditious hearing for any application for new or improved air service in a market in which at least one of the two cities principally affected, and at least one certificated air carrier, request such a priority hearing:

- (2) Amend or supplement the existing statutory provisions to provide that nonstop authority which is not exercised for one year will be presumed to be abandoned. At any time thereafter, the authority to provide such service

should be granted to any carrier fit, willing, and able to exercise the authority, upon application of any party in interest;

(3) Amend or supplement the existing statutory provisions to require the award of new competitive authority wherever it can be shown that the carriers' operations in the market will produce reasonable results. This proposed amendment is predicated upon the demonstrated fact that competition develops traffic, improves service, lowers fares, and lowers unit costs by expanding service and promoting efficiency, all for the public benefit.

In conclusion, it should be emphasized that the present economic condition of the industry or the country should not influence the design of regulatory policies which must necessarily look forward to a future period in which such circumstances will no longer prevail. A positive regulatory program will prove effective for the industry in good times as well as in bad times. Decisions made today will affect the industry for many years to come.

The regulatory environment should be one that permits, stimulates and directs substantial growth in our air transport industry, the growth that is so vital to the achievement and maintenance of maximum efficiency. It is from this achievement that so many fare, traffic, service and technological benefits have historically flowed. When these occur, they provide substantial stimuli to the national economy through expansion of employment in the airlines, the manufacturing companies, airports and all other air transport related industries.

PREPARED STATEMENT OF JAMES GAGNON

My name is James Gagnon. I am general manager and chief executive officer of the Louisville and Jefferson County Air Board, Louisville, Kentucky. I am also chairman of the ad hoc committee on air service of the Airport Operators Council International. It is in this latter capacity that I offer the following testimony to the Subcommittee on Administrative Practice and Procedure of the Senate Judiciary Committee.

The Airport Operators Council International is an organization of public entities that have the responsibility and authority to accommodate air transportation within their respective communities. The domestic membership numbers 187 cities, counties, states and regional public agencies serving metropolitan areas which account for more than 60 percent of the total U.S. population. For the year ended March 31, 1974, airports operated by the domestic membership of AOCI accounted for about 90 percent of the total U.S. passenger enplanements on the certificated air carriers. With this vast constituency, the AOCI is the organization best suited to represent, at first hand, the public interest in air transportation matters before the Congress and Civil Aeronautics Board.

In October, 1974, the AOCI membership, at its annual business meeting, adopted a resolution that:

(1) requests and urges the Civil Aeronautics Board to rededicate its efforts in the spirit and intent of the Federal Aviation Act of 1958, as amended, to further develop the domestic air transportation system in the public interest;

(2) resolves that the Civil Aeronautics Board should immediately reinstate the judicial and evidentiary processes contained in its Rules of Practice in Economic Proceedings, involving the potential authorization of new, altered and/or competitive air services; and

(3) directs the AOCI ad hoc air service committee to prepare and implement a program involving the entire domestic membership in an effort to bring to the attention of Congress that the public convenience and necessity for adequate air services can no longer be met by continuation of the moratorium on air route proceedings.

This action was taken after the AOCI air service committee, based upon careful study, reached several firm conclusions relative to the public interest in air transportation matters. These conclusions were:

(1) Since 1970, the Civil Aeronautics Board has overtly engaged in a moratorium on its regulatory activities, which moratorium has prevented the authorization of new, altered and/or competitive domestic air service patterns within the U.S. domestic air transportation system.

(2) The Civil Aeronautics Board's moratorium on regulatory activities relative to domestic air carrier routes is in conflict with the law and legislative mandate of the Congress of the United States.

(3) The Civil Aeronautics Board's moratorium, although it may or may not be in the best economic interests of the U.S. certificated air carriers, is in fact detrimental to the public interest as provided for by the Congress.

(4) The Civil Aeronautics Board's moratorium on regulatory activities relative to domestic air carrier routes is contrary to established AOCI objectives and policies as set forth in the organization's bylaws and policy handbook.

(5) There currently is and always has been a lack of public interest representation before the Congress and at the Civil Aeronautics Board.

(6) There is a vital need for effective public interest representation before the Congress and Civil Aeronautics Board in the adjudication of and policy determinations in air transportation matters of broad national concern.

(7) The service requirements and interests of the smaller communities of the Nation are in particular need of effective national representation.

(8) The Airport Operators Council International is best suited to represent the public interest in air transportation matters before the Congress and Civil Aeronautics Board.

Attachment A to this testimony is the initial report of the AOCI air service committee to the organization's board of directors, submitted October 6, 1974. Attachment B is the supporting documentation for the conclusions and recommendations contained in attachment A.

It is widely recognized that the Federal Aviation Act is a developmental statute; and it will remain so until Congress says otherwise. We strongly adhere to the belief that a great deal of development remains to be done in this industry. Not one of the Act's fundamental objectives has been rendered obsolete. One of its principal aims is to make certain that an air transportation system is developed that will properly accommodate the "present" and "future" needs of this nation. This is a living, ongoing requirement. In the Congressional declaration of policy in the Act, it is stated that the Civil Aeronautics Board, in carrying out its responsibilities under the law, "shall consider" certain factors, among others, "as being in the public interest, and in accordance with the public convenience and necessity." The listing includes the Board's responsibility to "foster sound economic conditions" in the airline industry. No one will deny that a healthy air transportation industry is one of the Board's major considerations. But not to the exclusion of several other major considerations declared to be "in the public interest and in accordance with the public convenience and necessity."

The "encouragement and development of an air transportation system properly adapted to the present and future needs of the . . . domestic commerce of the United States" is a major responsibility; the recognition and preservation of "the inherent advantages" of air transportation is another; the "promotion of adequate . . . service by air carriers" is still another. Finally, in dealing with the matter of air transportation services, the Congressional declaration of policy underscores the most basic tenet of the American free enterprise system, the Board's responsibility to provide for "competition to the extent necessary to assure the sound development of an air transportation system properly adapted to the needs of the . . . domestic commerce of the United States." The intent of Congress when it directs the Board, through the very law which created the Board, to hold a hearing on a certificate application and to authorize the services sought if they are required by the public convenience and necessity, is that these concepts, principles and standards must be considered by the Board. When a public hearing is held, the standards by which a proposed service will be adjudged are known factors. How then can the Board escape the application of those standards and deny the authority requested, by the simple expedient of refusing to hear?

Section 401(c) of the Federal Aviation Act (1958) expressly requires the Civil Aeronautics Board to set down for public hearing any certificate application filed with it and to "dispose of such application as speedily as possible." Further, if it finds that the service for which a certificate is sought is "required by the public convenience and necessity," it is incumbent upon the Board to issue a certificate authorizing and requiring the performance of such service by an air carrier (Sections 401(k) and 404(a)).

It is not possible to weigh and evaluate the public convenience and necessity by inaction or default. Inaction, default or moratorium can only constitute a denial without due process of law—a law which very carefully details what must be considered. It cannot reasonably be assumed that no proposal for public service improvement or for route improvement could offer any real opportunity

for solid and substantial public or carrier benefit. It cannot properly be assumed that none could survive intelligent examination and evaluation, through the hearing process. For the Board to fail and refuse to provide this hearing opportunity does in effect constitute the repeal of an Act of Congress by the Civil Aeronautics Board—a creature of Congress established to carry out the will of Congress.

The elements of the statutory mandate which I have very briefly enumerated can scarcely countenance a moratorium. On the contrary it is clear that a moratorium is repugnant to the intent of Congress. Yet, since 1970 the CAB has admittedly been following a policy of concentrating its regulatory and developmental responsibilities on improving the profitability and economic strength of the scheduled airlines of the nation. It has avowed also, in effect, that any other public interest considerations would be set aside until the carriers' economic needs had been fully satisfied. That policy has been continued and repeatedly emphasized to this date. For all practical purposes, the Board has for several years now rejected any real consideration of the "public interest" in matters pertaining to possible route or public service improvements, even though that is the paramount purpose of the developmental statute under which the Board operates.

Present Board policy is a complete abdication of this function and responsibility. Not only has it stagnated the public interest process and its intended benefits, it appears to be destroying the initiatives and incentives that are so fundamental to a developmental statute. The vacuum created by this policy is literally obliterating vast opportunities for economic growth by carriers and cities alike, and at the same time the need in this nation for air service growth and for improved air services continues to grow at an accelerating pace.

The membership of the AOCI is aware that the matters over which the Civil Aeronautics Board has purview are complex and we acknowledge the need for careful deliberation into the effect of regulation or lack thereof in the air transportation industry. We do not, on the other hand, acknowledge or accept that the regulation of air transportation need be so sophisticated as to defy understanding nor so esoteric as to be performed without public knowledge or consultation.

It is our further view that the imposition of this moratorium has frozen, and in many instances, degraded an imperfect air transportation system in the United States. During the time that the public voice has been silenced at the CAB through the moratorium on public hearing processes, the following consequences, adverse to the public interest and in conflict with the intent of Congress, have become manifest: (1) increasingly higher unit costs for the airlines; (2) repeated fare increases; (3) reduced competition; (4) reduced public air service; (5) ex parte decisions regarding excessive competition; and (6) the concept of master air route system planning without the legal requirement for evidentiary process: worse yet, the Board's Bureau of Operating Rights contemplates a predetermination of the shape and substance of the nation's air service network by the staff through a proposed rulemaking proceeding that would foreclose the Board members from the exercise of their quasi-judicial responsibilities on a case-by-case basis.

It may be said that these consequences have further consequences in that they have produced: (a) an unhealthy dependence by the airlines on the CAB which has had the affect of stifling carrier initiatives, efficiency, and good management discipline; (b) the abandonment of route strengthening which has historically been successful as a means for better economic health for the carriers and the communities alike; (c) an indifferent effort by the carriers and the CAB to seek out and develop new markets and new communities of interest; and (d) almost complete disregard of the needs of the cities of America for air service improvements and strengthening.

The Board's continuing eagerness to concentrate on and accommodate to the carriers' financial health has produced milestone results for the airline industry.

I am advised that while this moratorium has been perpetuated, and in light of the standards developed in the domestic passenger fare investigation, the domestic trunkline industry earned a 12.4 percent rate of return on its investments in fiscal year 1973 (CAB 73-190, dated October 12, 1973), and a 12.1 percent return on investment in calendar year 1973, (CAB 74-188, dated August 23, 1974). This exceeds the 12 percent rate established by the CAB as "fair

and reasonable . . . (and) sufficient to compensate the carriers for their cost of capital, provide the equity owner with returns comparable to returns on investments in enterprises having comparable risks, and enable the carrier to maintain their credit and to attract capital." (CAB order 71-4-58). The earnings for the domestic trunkline carriers have further improved dramatically in 1974 with operating profits up 73 percent to \$761 million, and net income up 114 percent to \$359 million for fiscal year ended September 1974, (Interim financial report, September 1974). Even before the adjustments to the standards developed by the CAB, there are five domestic carriers earning the full rate of return or substantially more than the full rate of return on investments. The eight regional carriers' earning for the same period are at 14.3 percent and climbing.

Thus we see that the CAB's concern for the airlines' profitability, to the exclusion of the public need, has provided the carriers with not just a return to profitability, but a return to an all-time record in profitability, while the public requirements for improved service go begging. It should be noted, too, that these all-time profit records were achieved in the face of record high fuel prices, record high wage levels and record high costs in virtually every other category in an airline operation. Little wonder then, with such all-time high profits bestowed by the benevolent hand of the CAB, that the airlines, individually and collectively, have been hesitant to protest the Board's abandonment of the processes of route strengthening and public service improvement. There is a basic reluctance to disturb things in this "too good to believe" world.

With the Board's abdication of its public service responsibilities, the public interest has gone unattended; public interest consideration has been virtually shut out. That situation must be changed! The public's essential right to representation, participation and a just determination on the merits must be restored at the earliest possible time.

The AOCI is represented by professional people operating facilities which serve millions of the American public day in and day out. From their quasi-public, quasi-governmental posture, they are directly involved in a number of air transportation matters every day in nearly every city of any size across the nation. Accordingly, AOCI has a vital interest and responsibility in air transportation matters of broad national concern.

Their is a deep-seated public interest in expanding and strengthening air routes and services. In recognition of its own public responsibility in these matters, the AOCI is endeavoring to insure that there is provided for the communities and the public that it represents a climate within which each city, acting on its own, will have the opportunity to obtain whatever quality and quantity of air service that it can justify: an atmosphere in which both the cities and the carriers will have an opportunity to achieve substantial economic strengthening through air route and air service improvements.

The Board of Directors of AOCI, meeting in San Diego in October of last year, reviewed the extensive work and analysis of its all service committee and completely endorsed the committee's recommendation that AOCI seek Congressional support for an immediate and complete termination of the Civil Aeronautics Board's moratorium. Pursuant to that action the board of directors directed its air service committee to "prepare and implement a program" to that end.

Among the air service committee's recommendations on which the board of directors action was premised were the following:

That the CAB should lift its moratorium, immediately and totally;

That the CAB should resume the use of the numerous public interest procedures provided for it under the law, and several that it devised itself for the purpose of expediting public service improvements and carrier route strengthening;

That the CAB also launch investigations looking toward:

the elimination of unnecessary public service restrictions in airline certificates;

the more effective use of existing air carrier authority, some of which has lain dormant for many years;

the possibility of transferring a carrier's unused or poorly used operating authority to a carrier with more incentive and aptitude for its more effective use; and

further route consolidation proceedings designed to streamline carriers' operating authority in the public interest.

Work went forward by the air service committee toward further definition, refinement and implementation of these objectives. On January 3, 1975, however, the air service committee received a copy of a CAB staff study by the Bureau of Operating Rights of the Civil Aeronautics Board which was released New Year's Eve, 1974. The study was entitled, "The Domestic Route System: Analysis and Policy Recommendations," a staff study by the Bureau of Operating Rights, October 1974.

A superficial glance at the study suggested that the Bureau's staff was recommending a termination of the moratorium and a full resumption of the Board's route and service developmental responsibilities. Such a proposal would have lent substantial impetus to the recommendations of the air service committee, and eased significantly its burden. Further examination of the study, however, gave strong indication that the BOR staff might be striving for the exact opposite result, i.e., a further solidifying of the moratorium.

That strong possibility made it urgently incumbent upon the air service committee to determine as precisely as possible the full impact that the Bureau's recommendations could have on the moratorium and on the welfare of the population clusters represented by AOCI. Since the study, the first of its type released by the Board's staff, was some two years or so in the process of development and was extremely broad in its scope and implications, it required a substantial amount of time for evaluation.

As a product of our assessment, one fact can be stated without any equivocation: If the staff recommendations were to be implemented by the CAB, the moratorium would effectively become permanent Board policy. It therefore became alarmingly clear to the committee that the BOR staff proposals would violate each of the AOCI public service objectives enumerated; and this was the unanimous conclusion of the air service committee meeting in Phoenix on January 23 and 24 of this year, after a comprehensive review of the Bureau's study and the objectives of AOCI.

Further, and on the basis of this comprehensive review and evaluation, specific statements of position and specific legislative recommendations were unanimously adopted by the air service committee and forwarded to the board of directors of AOCI with a recommendation for its approval in its meeting scheduled for February 20, 1975.

In the discussion of the BOR staff study that follows, the views expressed are those resulting from the unanimous conclusions reached by the air service committee in consequence of its extensive evaluation of the study. The essence of this is contained in the recommendations which, as stated, have been forwarded to the Board of Directors of AOCI for consideration and approval.

AIR SERVICE COMMITTEE EVALUATION, BUREAU STUDY: "THE DOMESTIC ROUTE SYSTEM: ANALYSIS AND POLICY RECOMMENDATIONS"

The study conducted by the Bureau of Operating Rights formalizes, as future policy of the CAB, the route moratorium which has been in effect since 1970. Generally, the proposed policy creates a circumstance which prevents the CAB from proceeding on a case-by-case basis by establishing certain economic obstacles (standards) designed to block any requirement for regulatory action. In essence, the standards proposed in the study preclude all other considerations with regard to the determination as to who should be certificated to provide service in a market. They prevent certification in markets that need the service with no incumbent authority or, more importantly, in the markets where nonstop authority exists, but no such service is provided.

The proposals in this study create a regulatory obstacle for the development of operating authority in the future that is vital to the public, as well as the air carriers themselves. There were 4,112 markets studied which represented all city-pairs generating more than 2,500 nondirectional O&D passengers in 1972. Of these 2,928 have certificated nonstop service. However, only 590 received competitive nonstop service. Another 639 received monopoly nonstop service, which leave 1,699 markets with no nonstop service where such service has been certificated. It is this area that the bulk of the economic opportunities for growth and development exist. Most of these markets are not conducive to efficient operations by the incumbent carrier but would represent valid economic opportunities for other carriers. The incumbent carrier does not feel compelled to develop this service nor is it pressured by the regulatory policies effective today or by those proposed in the BOR study.

The preconceived objective of the study appears to emphasize the concept that competition: (i) creates most of the problems in the air transportation industry; (ii) should be avoided in the future; and (iii) should be eliminated wherever possible. A conclusion of the study is: "The system has offered, in general, an overall volume of service that is excessive in relation to demand in competitive markets." It was further held that competition drives load factors below the reasonable level, preventing carriers from achieving a 12 percent return on investment; and, therefore, that the CAB should adopt a policy, through the implementation of standards of avoiding this in the future in order to improve the economic condition of the industry. The analysis also concludes that the key to developing the improved economic condition of the industry is to increase load factors; the key to increasing load factors is to eliminate competition as much as possible by discouraging competition in markets today, encouraging capacity restriction agreements; and denying consideration for the authorization of competitive services in the future. The analysis states, "if any real improvement in load factors is to be achieved by a lessening in degree of competition, it is necessary to establish monopoly status for the markets in question" (page 89, emphasis added). This is a gross oversimplification of the problem with regard to competition versus profits. No one denies that excessive competition or destructive competition hurts the industry and is not in the public interest. However, nowhere in the study is there any support for the idea that two-carrier competition creates these problems.

This study itself does not support the conclusions and recommendations made with regard to the establishment of standards. There are many inconsistencies and many conclusions drawn in the study itself that do not support the overall policy and philosophy proposed for the future. Generally, the study took an in-depth look at what took place in the industry between 1960 and 1972 to determine whether it was good or bad for the traveling public, as well as the carriers involved.

The study itself supports the fact that it was the rate policy prevalent in 1970-1972 that created most of the load factor problems. It is the rate level that creates a capability of the carriers in the long-haul markets to provide service at low-load factors. The study developed the fact that in two-carrier competitive markets the load factors are generally the same as they are for all service on an industrywide basis in all mileage categories. In other words, carriers generally conform the level of service to the overall breakeven load factor requirement.

Since the analysis of load factors designed to support the conclusions of the study was conducted during a period prior to the implementation of the fare structure resulting from the domestic passenger fare investigation, the projection to the future encompasses an air carrier operation substantially different in rate structure characteristics than that which prevailed in the past. Since the implementation of the fare structure is due to take place in June of this year, the correction in load factor characteristics should respond to the changing rate structure and not to the changing circumstances involving competitive service.

The study was conducted over a period of two years ending in February of 1974. It was dated October, 1974, and released on December 31, 1974. The content provided insufficient information for complete analysis and evaluation. Standards are proposed for the purpose of screening applications to determine whether or not the CAB should conduct an investigation into the need for the service contained in an application. However, the standards do not allow a route application to pass through this preliminary test of economics and load factor in order to be processed on the case-by-case method envisioned by the Federal Aviation Act, which is the only judicious method for adequate examination. Since these are not the only features that the CAB should consider when determining the need for service, they prevent recognition, by the Board itself, of the necessary information relevant to other factors, such as, carrier strengthening, need for service, economic viability under realistic conditions, traffic stimulation and development, etc.

The overall rationale used to develop the standards is keyed to the Domestic Passenger Fare Investigation for the 55 percent load factor and the 12 percent rate of return. However, these standards are misused in that they are considered minimums when applied to the route policies proposed. Since the 12 percent rate of return is considered a minimum, very few airline markets can generate excessive earnings and, therefore, warrant regulatory action by the Board.

In essence, standards should not be developed to prevent the CAB from doing its job. The Bureau of Operating Rights' recommendations establish standards

that would prevent any significant new air service improvement proposals from coming before the Board members themselves for a decision on public convenience and necessity issues. A prejudgment of such issues by the Bureau of Operating Rights by proposing this technique strongly suggests that the Board members themselves should be precluded from assessing and deciding service improvement proposals under the public interest guidelines set down by Congress. This scarcely conforms in any respect to the intent of Congress. It is the Board members themselves in whom the public trust has been vested by the Congress, and by Presidential appointment confirmed by the Senate. It is the individual members who bear the burden and the privilege of decisional responsibility with respect to the ultimate issues of public convenience and necessity and the need for changes in operating authority. The industry (all carriers) and the public are entitled to the Board members' fair consideration of air service improvement proposals and to the full exercise of their responsibilities within both the spirit and the explicit criteria of the law under which they are granted the right and the duty to function. They can neither be prevented nor protected from the exercise of this responsibility.

EVALUATION OF BUREAU'S PROPOSED STANDARDS

The Bureau's study of the domestic route system proposed that the Board go forward with a route program (page iii). However, when the proposals are analyzed the route program does not "go forward"; the moratorium is perpetuated. The study has this to say about its objectives: "In these circumstances regulatory route and route-related policies should be directed to improving the efficiency and quality of the system through a careful expansion of route authority when required by traffic, and through route rationalization. The latter will require direct action by the Board and creation of incentives for carrier-initiated actions. In so doing, civic interests should play an important role. This dual program of route expansion and route rationalization is intended to make available new services whenever sufficient demand has been established, to correct serious deficiencies, and generally, to minimize the need for fare increases by encouraging efficiency" (page 9). It is stated that the route policies recommended are derived from the premise that the overall statutory scheme in respect to economic regulation shall continue (page 147). It further suggests: "that the Board proceed, as it has historically, on a case-by-case basis with a view to making gradual adjustments in the linear route system. This means that each case will be decided on its own merits in accordance with the statutory standards of public interest and public convenience and necessity as determined by the Board" (page 147).

However, when we look at the study proposals, the logic stated in the objectives loses its coherency. The BOR's recommendations suggest "that the Board establish, by rule, evidentiary requirements that would be applicable to all route and route-related applications, as well as benchmark criteria for determining which route authority applications and adequacy petitions should be afforded priority hearing" (page 148). Only after these applications have met such criteria will a hearing be conducted (see attachment C). It is all too apparent that these procedural requirements and economic standards, as graphically depicted in attachment C, are excessively expensive, unduly time consuming, and virtually unattainable.

This process places the economic standards between the carrier applicant or civic party and the Board itself. The processing of the application and the evaluation of the economics in the application, as they apply to the standards, will take place at the CAB staff level prior to the Board concerning itself with the need for regulatory action. If these standards are not met, the Board will never deal with the petition or application.

The study recommends that the CAB; "... undertake, on the basis of published standards, a continuing program of route expansion: to hear and adjudicate route cases to improve and perfect existing authority consistent with the Board's DPFI economic goals and in accordance with developing traffic requirements . . ." (page 149).

A brief examination of these standards demonstrates that practically no new route opportunities would survive these economic tests. This, of course, then points to a perpetuation of the route moratorium program.

FIRST OR ADDITIONAL COMPETITIVE AUTHORITY

The proposed standard is, "That the proposed operations will earn at least 12 percent rate of return in the first year of operations" (page 159).

The operation of competitive service in the first year simply cannot generate a 12 percent rate of return under reasonable circumstances. This clearly implies service deficiencies in the market even after the proposed services are placed into operation. Otherwise, as the gradual improvement of identity and market penetration of the newly certificated carrier occurs, by the end of this first year of operation, the actual rate of return would exceed the 12 percent level to a substantial degree. This indicates that excess profits can be generated in a competitive market in the early stages of development and that the second year will produce excessive profits for both competitors in the market.

This standard cannot be met when using reasonable forecasting techniques. Therefore, the only conclusion which can be drawn is that no such market will survive this test, the route moratorium will be perpetuated, and the CAB itself will not face a decision regarding the need for service in these markets.

There is no support in the study itself for this standard. The study established that in the past, many markets in the medium mileage range category were served with a carrier averaging approximately a 55 percent load factor. This does not relate to the actual circumstances encountered by a carrier in its first year of operation in a competitive market. Also, the standard assumes that carriers should operate in succeeding years at load factors much higher than 55 percent and, therefore, encourages excess profits at high load factors as a norm for service quantity and quality. Therefore, the 55 percent coach load factor standard necessary to produce the 12 percent rate of return found to be reasonable for airline operations in the domestic passenger fare investigation is being used as a minimum standard. This is a substantial protective device for the incumbent. It is also obvious that such a condition is not conducive to growth and development of traffic for the future period to be covered by these standards. This standard goes to the heart of the regulatory process in the future since the development of competitive service is an underlying objective of the Federal Aviation Act.

The basis for the study clearly demonstrates that competition has been the key to the development of growth and efficiency in the air transportation industry in the past. This study was primarily confined to the development in the industry from 1960 through 1972 (appendix B).

The major route case expansion during this period involved primarily non-stop monopoly markets operated by trunk carriers, and looked toward the authorization of first competitive service. Unlike the earlier programs, the general program did not involve the issue of the need for increasing the number of competitive authorizations in markets already served by two or more unrestricted carriers. Multiple competitive awards were made in only a few markets and these generally resulted from considerations taken into account in the decisional process in relation to the carrier selection, or in the entry mileage situation. During this period the Board exercised control over the general program by setting cases through orders of investigation, rather than carrier applications. This program enabled the Board to direct a more systematic basis for route authorization during this period (page 44).

During the sixties, the Board frequently selected applicants primarily on the basis of features other than purely economic results. Many reasons were given for carrier selection, such as strengthening, subsidy need reduction, single-plane service benefits, and other selection criteria developed in a case-by-case approach. In commenting on the prosperity of the sixties, the study states: "The combination of abundant operating authority and service, particularly in competitive markets, has also influenced traffic development and the rate of technological change. Traffic has been stimulated by the high level of service made possible by the rate level, and even higher level of service in competitive markets has had a further stimulative impact" (pages 58 and 59). Competition generally means premium service, including promotional fares, advertising, and other major efforts made to stimulate the development of the markets directly to the benefit of the traveling public which produces an overall lower average fare. Of equal importance, the resulting development accrues directly to the benefit of the regional carrier seeking improved operating authority and geared to the pursuit of expansion and development as the key to achieving maximum productivity and efficiency.

"Although numerous factors have influenced the rate of technological change, competitive rivalry has itself played an important and possibly primary role" (page 59). Technological change in addition to growth has been the key to the development of the traffic increases which took place in the sixties. "Because these

aircraft have been responsible for the long-term decline in unit costs and prices, it is possible that the regulated competitive system has produced lower prices and a higher quality of service than would have occurred under either monopoly or unregulated conditions" (page 60). This statement is absolutely true. However, the proposals of this study, if adopted, will point this industry in the opposite direction.

NEED FOR ADDITIONAL NONSTOP SERVICE

The standard proposed to indicate inadequate nonstop service is: "The load factor in this market on all nonstop service must exceed 75 percent for the previous twelve months" (page 165).

This load factor standard is extremely difficult to achieve in light of the fact that, "most markets show pronounced variation by season, by day of week, and often by time of day. During peak travel periods, load factors can be expected to rise above the average. Only when aggregate load factors climb about a reasonable level for protracted periods does scarcity of available seats become an adequacy of service problem" (page 166). The establishment of a 75 percent load factor as the standard is anything but reasonable. The study itself indicates that there were only three markets that reached this load factor experience for the 12 months ended August 31, 1974. This period embraced the fuel crisis which led to unusually high load factor conditions on many nonstop markets across the country. In addition, the Ontario-San Francisco market was affected by the strike of the intrastate carrier in this market creating an abnormal traffic condition for the incumbent CAB carrier.

The findings in support for this load factor standard itself established the unreasonableness of this condition and the fact that no carrier will be under any strain to increase service in a nonstop market since the standard will never be surpassed.

The establishment of this standard creates several significantly detrimental public convenience and necessity features to air service today. The operation at such an excessive load factor is not conducive to growth and development of airline passenger traffic. Many extremely high density markets today, well known for being unable to adequately accommodate many passengers due to excessive load factor conditions, cannot meet this standard. Attachment D, demonstrates the actual experience in five of these markets. The fact that first-class service is averaged into the total produces a condition that prevents the overall load factors and actual markets known to us at this time to be extreme high load factor problems.

This, of course, overtly encourages the carriers to operate in markets with load factors up to 75 percent. The standard tells the carrier that the CAB expects operations at this level to be maintained in order to improve "efficiency" since it considers a 75 percent load factor "reasonable". The domestic passenger fare investigation established the fact that a 55 percent load factor standard is a reasonable load factor when conducting regularly scheduled airline service. The rate structure of the carriers has been designed to achieve a full rate of return of 12 percent at the 55 percent load factor. Therefore, the encouragement of the carriers by the CAB to operate with load factors in excess of 55 percent up to 75 percent produces an excessive profit condition and at the same time stymies the ability of the service in the market to develop traffic and service growth. When looking at a typical market that produces a return of approximately 12 percent at a 55 percent load factor for a Boeing 727 operation of 653 miles we begin to see the absurd financial results that are encouraged by this standard (attachment E). A 60 percent load factor in this market will produce an 18 percent return on investment. A 65 percent load factor will produce a 23 percent return on investment. Since the criteria for the domestic passenger fare investigation established the fact that a 12 percent rate of return is reasonable, these returns on investment are extremely excessive and directly conflict with public convenience and necessity in a sound economic environment. They are conducive to a no-growth posture in the industry and will therefore fail to produce an efficient unit cost characteristic which will in turn, have an extremely inflationary impact. Since the unit cost will rise rapidly under this condition, fares must go up. When fares go up, traffic growth is adversely affected.

This cycle, therefore, will produce a negative growth characteristic in the industry since the upward cost trend will exceed the overall increase in the consumer price index because of the unreasonable load factor levels. The absurdity of the economic results can be seen when looking at the results when load factors

achieve an average of 70 percent which generate a return on investment to the carrier of 27.9 percent, more than twice that considered reasonable after the completion of the formal investigation to determine the financial needs of the air transportation industry. Again, this still is not the load factor level that is considered reasonable by this 75 percent standard. The carriers are, therefore, encouraged to operate as close to the 75 percent level as possible and, therefore, should be experiencing an overall load factor level in the markets of 70-75 percent which allows their return on investment to rise to between 28 and 32 percent.

The 75 percent load factor standard simply cannot be achieved on a regular basis under reasonable circumstances. When looking at the load factor characteristics of the airline operating in the highest routes in the world, PSA in the California corridor markets, the 75 percent load-factor standard represents a totally unreasonable level. PSA operating under ideal circumstances in a high frequency market carrying thousands of passengers daily in each direction on services designed to maximize traffic has never exceeded an average load factor above 60 percent for a 12-month period since 1967. At that time PSA operated Electra aircraft. Attachment F illustrates PSA's experience in its top three markets, two of which are noncompetitive.

The domestic passenger fare investigation did not support the establishment of a 75 percent load-factor standard. PSA's operation in the world's largest market under ideal circumstances cannot come close to supporting the establishment of a 75 percent load-factor standard. The study itself dealing with the load factor characteristics developed in the industry during the sixties, a period of substantial traffic growth, does not support a 75 percent load-factor standard. The 75 percent load-factor standard is not conducive to efficient operations. This standard will constrict traffic growth and place the industry in a position of not being able to accommodate inflationary cost increases and other economic problems of the future; it will not allow the carriers to phase out obsolete equipment on a rational basis; but it will create lower utilization due to lack of service expansion, accelerate increasing unit costs because of a no-growth or negative growth condition in the market place, which in turn creates a substantial increase in fair requirement on a regular basis which in turn depresses the demand for air service thereby placing a greater cost/price pressure on the industry. The ability of the air transportation system to evolve into the most effective and efficient intercity mass transportation system possible is defeated by a standard not supported by the study nor any other analysis available.

FIRST NONSTOP SERVICE

The standard proposed by the Bureau to encourage the carriers to provide first nonstop service is that, "True O&D plus flow traffic, for the previous 12 months was sufficient to maintain a 55 percent load-factor on two round trips with the smallest aircraft type commonly used in city pairs of similar mileage range" (page 165). "Nonstop service is the level at which air travel has its greatest advantage and it is incumbent upon the Board to assure the availability of such service whenever economically possible" (page 167).

The standard, if adopted, will not create an environment conducive to providing first nonstop service in a market. A careful review of this standard indicates that compliance will encourage abnormally high load-factors, reluctance to provide nonstop service, and only when conditions become unbearable; one nonstop round trip can be provided for almost an indefinite period before the Board would be in a position to investigate the service deficiency under this rule.

This is an extremely important area for air service since it is the most desirable form of service and since so much authority exists to provide such service today that is not being used. This study dealt with all airline markets in the U.S. producing more than 2,500 nondirectional O&D passengers in 1972 (approximately 6.8 per day) (page 70). There were 4,112 markets analyzed, of which 2,928 have nonstop authority. This is one of the most important statistics developed in this study representing the most significant regulatory challenge for the future. Of the airline markets 71 percent today have nonstop authority that has been granted by the Civil Aeronautics Board.

When the quality of service provided in these markets is analyzed, several dramatic features become apparent. First of all, the numbers used in the study should be qualified as follows: "A more serious overstatement of the levels of service provided stems from the classifications of markets on the basis of the best level of service provided. A single nonstop flight, for example, was sufficient

to identify a market as nonstop, regardless of the possible existence of unmet additional demand for nonstop service" (page 72).

Therefore, keeping in mind that the service classifications are overstated by some unknown degree, we find that for this group of 2,928 markets, only 590 received competitive nonstop service. This means that only 14 percent of the markets served today received competitive nonstop service and only 20 percent of the markets eligible to receive nonstop service received competitive nonstop service. In addition, another 639 markets received noncompetitive nonstop service. Therefore, another 22 percent of those markets which have nonstop authority receive nonstop service on a noncompetitive basis. So, we see that a total of 1,229 markets receive nonstop service of some form, which is only 42 percent of those markets where nonstop authority exists and was found to be necessary at one time or another in the past by the CAB. When we look at the 1,699 markets where nonstop authority exists but is not provided, on either a noncompetitive or competitive basis, we can begin to focus on the extent of the need for the development of a regulatory policy designed to create the incentive and the initiative to place this authority in the hands of willing carriers.

The standard developed to encourage carriers to provide this service is truly counterproductive. The standard is based upon the actual traffic flows in a market prior to the receipt of such service. The initiation of nonstop service in a market will obviously stimulate the development of traffic in the local market, as well as improve the ability of the market to accommodate through traffic. None of this traffic is considered when determining the need for nonstop service. In addition, the market is judged on its traffic flows over a past period to require nonstop service when it is large enough to support two nonstop round trips at a 55 percent load factor. Therefore, a carrier can provide service in a market almost indefinitely without being affected by this standard. One-stop service in this market can be provided until the market is practically shouting for the need for nonstop service. At that point, the incumbent carrier which, as we have seen, already has the authority, can install one nonstop round trip without ever facing the prospect of having this market meet the need for additional nonstop service. The rule governing the determination in a market requiring additional nonstop service would then come into play. In other words, the one nonstop round trip must exceed 75 percent load factor over the previous 12 months before additional service is required. Therefore, the interplay of these two standards is not conducive to traffic development (even accommodation of normal growth), improved quality of service, or incentive for the carrier to operate and provide service in markets where authority already exists. The study concedes that "managements will tend to schedule within the standards enunciated under the rule" (page 151). Truly, this condition formalizes as a Board policy the moratorium that has been in existence since 1970 and is in direct conflict with public convenience and necessity and the stated intent of the Federal Aviation Act.

SINGLE-PLANE SERVICE (1- OR 2-STOP)

The minimum service quality required in an airline market is single-plane service. While connecting service is possible, this is the lowest form of service quality that can be provided. Effective single-plane service should be encouraged and developed in order to cultivate the growth and development of the air transportation industry in the low and medium density market. Again, effective regulatory policy in this area can directly encourage further technological development in the industry designed to make such service economically feasible. If regulatory policy discourages the development of service in this area, there is no incentive to pursue effective aircraft designed to meet this need.

The standard to determine the adequacy of single-plane service (one or two-stop) is that "the market should generate not less than 40 true O&D passengers per day and:

- (a) no single-plane service available, or
- (b) single-plane service used by less than $\frac{1}{2}$ of the true O&D passengers during the previous 12 months" (page 166).

It is stated that for a market to receive first single-plane service, it must exceed the 40 true O&D passengers per day criteria (page 166). "Few city pairs which do not already receive single-plane service are likely to generate sufficient O&D traffic to justify, of itself, new single-plane service" (page 76). It

appears that this standard was developed after the information regarding traffic volumes in such markets was known rather than following the rationale in this study that supported the development of this standard. There are 1,474 markets today receiving connecting service only (page 74). Of these, only 34 markets exceed the 40-passenger criteria. This represents but two percent of the total markets not now receiving single-plane service. However, if the standard developed at the conclusion of a formal CAB investigation (Washington-Baltimore investigation in 1960) was applied to these markets, 906 markets would warrant single-plane service. This, of course, would call for very active regulatory pursuit to determine the ways and means of implementing the needs for the minimum quality of air service in these markets. This also dramatically demonstrates that the regulatory practices of the CAB, especially since 1970, are not conducive to implementing such service improvement since no demonstrated concern for service quality in this category of market has been made by the CAB.

The development of the 40-passenger standard is extremely arbitrary and not relevant to material developed in this study itself. In 1960, the CAB determined that effective single-plane service was the rule in markets exchanging approximately 10 passengers per day and located less than 750 miles apart. It is important to note at this point that these were low density markets within a 750-mile range and not markets served by the largest airplanes in the commercial airline fleet over long distances. However, in establishing the 40-passenger standard, the CAB dropped the mileage criteria established as a result of the formal CAB investigation with no supporting rationale. In addition, the 10-passenger standard was adjusted to 19 with the reasoning that the average aircraft size providing service today in all markets has almost doubled versus the average that prevailed in 1960 (123.8 versus 65.4). This rationale ignores the fact that the smaller aircraft type is the appropriate aircraft type to determine the feasibility of providing service in the medium and low density markets.

A major portion of service responsibility in this type of market should rest in the hands of the regional carriers. In 1960, the average aircraft capacity for the trunkline carrier was 71 seats. In 1972, the average aircraft capacity of the local service carrier was 72 seats (page 19). Therefore, we see that there has been very little change in the overall capacity of the aircraft designed to meet the needs of the air service in the medium and low density markets. We see merely that the overall capacity of the trunk carriers has grown substantially due to the service inauguration of very large equipment designed to meet the needs of the long-haul high-density markets. This development should not adversely affect the air service quality in the low and medium density markets and most certainly should not be used in the rationale to support the standard to meet such service needs.

The standard is then further adjusted by the fact that the number of online stops per passenger trip decreased from 2.57 to 1.62 and has remained stable around the latter figure for the past three years. Therefore, to adjust for this difference in service quality, the 19-passenger level was divided by .63 (the ratio of 1.62 to 2.57) to provide a revised minimum of 30 passengers. This is another arbitrary adjustment with no support in the study. Generally, circumstances governing the ability to provide single-plane service in markets of this size depend upon the equipment, traffic in the local markets, flow characteristics of other traffic in the market and the mileage.

The traffic flow proportions in these markets vary dramatically with mileage. "For city pairs at distances less than 100 miles, there is only one origin-destination passenger for every 10 passengers transported" (page 65). In markets ranging from 300 to 500 miles there are 4 origin-destination passengers for every 10 passengers transported. In markets up to 800 miles, the rationale becomes 5 local passengers for every 10 passengers transported. This trend continues until we see that in markets over 2,000 miles, there are 9 local O&D passengers for every 10 passengers transported. At this point, it is apparent that there is no analytical justification for removing the initial 750-mile limitation developed by the CAB in 1960. A standard varying with mileage would have been far more relevant to the material contained in the study (page 66). Since this type of information was not known relative to the transportation of passengers in 1960, there is no support for the rationale for the adjustment made moving the standard from 19 passengers up to 30 passengers.

The study then proceeds to develop the jump from 30 to 40 passengers as follows: "Because not all O&D passengers are likely to prefer single-plane service

to connecting service, the minimum level of O&D passengers may be increased to, perhaps, 40" (page 168). This again, is extremely arbitrary and is based on no evidence developed in the analysis.

The standard for evaluating the effectiveness of single-plane service once a market has exceeded the 40 true O&D passengers is "single-plane service used by less than half of the true O&D passengers during the previous 12 months." No information in the study was produced developing this type of information. Therefore, we are limited in our comments with regard to the reasonableness of such a standard. Again, in our judgment, it appears that such a standard should vary by mileage since it is extremely inconvenient for short-haul or medium-haul passengers to be forced to use connecting service because of the inadequacies of single-plane services.

In conclusion we believe that the study states many things which sound good, such as: "The authority of any incumbent carrier whose service is considered to be deficient—whether or not legally 'adequate' in the statutory sense—would be considered for outright deletion or deletion in conjunction with the issuance of replacement authority to another carrier" (page 153). Surely the development of service and economic opportunities in the future should be encouraged by the regulatory policies of the CAB. However, the proposal here goes in the other direction. It is worth a moment of conjecture to consider the catastrophic results to the industry had the proposed policies of the BOR been in effect since 1960.

We believe that the establishment of a regulatory environment that is conducive to growth and development of the industry is essential. Further, that an effective and responsive regulatory program will not be detrimental to any air carrier, either individually or collectively. Future emphasis should be given to placing the operating authority in the hands of the carriers fit, willing and able to provide service under a condition whereby the carrier can generate reasonable results where identifiable economic opportunities exist. Most of the major markets in the country have carriers which have the authority but have never exercised it. This is the major impediment to the development of the industry in the future, and the CAB should take steps to deal with this deficiency.

RECOMMENDATIONS

Enlightened regulation can develop the commercial air transport industry as the primary mass transportation means for intercity travel. It is obvious to us that this capacity is present within the existing regulatory framework. The first step called for is to place the operating authority in the hands of the air carriers fit, willing and able to provide the service. We need specific direction from Congress to the CAB to move forward.

The air service committee in January unanimously proposed to the AOCI board of directors that AOCI support seven key legislative amendments to the Federal Aviation Act. The amendments are designed to emphasize, in specific terms, the intent of Congress with respect to the need for continuing development and improvement of the air route structure and the public air services of this country, and to insure that the language of the Federal Aviation Act permits no misunderstanding or misinterpretation of Congressional policy and intent in these matters. It is our belief that the basic data contained in the Bureau's study supports our recommended legislative initiatives completely.

The seven legislative recommendations are:

1. Amend or supplement the existing statutory provisions to require prompt and expeditious hearing for any application for new or improved air service in a market in which at least one of the two cities principally affected, and at least one certified air carrier, request such a priority hearing. In the absence of objection, the authority may be granted without hearing.

This recommendation is far more compatible with the statements made in the Bureau of Operating Rights' study than the economic standards proposed in that study. The study recommends, "... to undertake, on the basis of published standards, a continuing program of route expansion: to hear and adjudicate route cases to improve and perfect existing authority consistent with the Board's DPFI economic goals and in accordance with developing traffic requirements;" (page 149).

This legislative reminder will go a long way in establishing effective regulatory incentives for the development of a complete air transportation system. The air service committee is in complete agreement with the following statements made in the study: "In these circumstances regulatory route and route-related policies should be directed to improving the efficiency and quality of the system

through a careful expansion of route authority when required by traffic, and through route rationalization. The latter will require direct action by the Board and creation of incentives for carrier-initiated actions. In so doing, civic interests should play an important role. This dual program of route expansion and route rationalization is intended to make available new service whenever a sufficient demand has been established, to correct service deficiencies, and generally, to minimize the need for fare increases by encouraging efficiency" (page 9). This initial legislative proposal, "... requires that the Board proceed, as it has historically, on a case-by-case basis with a view to making gradual adjustments in the linear route system. This means that each case will be decided on its own merits in accordance with the statutory standards of public interest and public convenience and necessity as determined by the Board" (page 147).

This proposal, of course, eliminates the economic obstacles created by the establishment of arbitrary standards that should be achieved prior to a route hearing being set down by the CAB. The fact that the city has expressed a need for service and that a carrier is willing to prosecute an application for such service should be sufficient indication to the Civil Aeronautics Board that an investigation should be conducted. The investigation will produce the economic data that is specifically relevant to the market in question in order for the Board to find the economic feasibility, as well as the need for service, on all of the other public convenience and necessity factors that should be considered by the Board.

No obstacles should be placed before the carriers who are willing to prosecute or the city who has expressed a need for such service. This puts the Board in a position of administering an industry in the proper environment and deciding the need for service on a case-by-case basis in order to prevent significant service deficiencies and to encourage the development of future service opportunities in the air transportation industry.

2. Amend or supplement the existing statutory provisions to provide that nonstop authority which is not exercised for one year will be presumed to be abandoned. At any time thereafter, the authority to provide such service should be granted to any carrier fit, willing, and able to exercise the authority, upon application of any party in interest. The application should be processed in a prompt and expeditious manner, and, in the absence of objection, should be granted without hearing.

"Nonstop service is the level at which air travel has its greatest advantage and it is incumbent upon the Board to assure the availability of such service wherever economically possible" (page 167). This is one of the most critical areas for regulatory activity affecting the future development of the air transportation industry. The study dealt with all airline markets in the U.S. producing more than 2,500 nondirectional O&D passengers in 1972 (approximately 6.8 per day) (page 70). There were 4,112 analyzed, of which 2,928 have nonstop authority. In other words, 71 percent of the airline markets studied have nonstop authority that has been granted by the Civil Aeronautics Board. Of this group of 2,928 markets, only 590 receive competitive nonstop service. In addition, another 639 markets receive noncompetitive nonstop service. Therefore, we see that a total of 1,229 markets receive nonstop service of some form, which is only 42 percent of those markets where nonstop authority exists and was found to be necessary at one time or another by the CAB.

When we look at the 1,699 markets where nonstop authority exists but is not provided, on either a noncompetitive or competitive basis, we begin to focus on the extent of the need for the development of a regulatory policy designed to create the incentive and the initiative to place this authority in the hands of carriers fit, willing and able to provide such services. The regulatory conditions established by the CAB should permit new entry into the markets. The incumbent carriers have had years to provide such service and has found that their system or their equipment is impractical to the provision of nonstop service. This is the key legislative proposal designed to rationalize the route system for the future. "The authority of any incumbent carrier whose service is considered to be deficient—whether or not legally 'adequate' in the statutory sense—would be considered for outright deletion or deletion in conjunction with the issuance of replacement authority to another carrier" (page 153). This language in the study clearly supports our recommendation.

3. Amend or supplement the existing statutory provisions to require an expeditious review by the CAB of all scheduled air carrier certificate restrictions that have not been imposed or specifically renewed within the past 5 years on

the basis of a public record affirmatively establishing a public convenience and necessity requirement. The statute should further require that no restriction may be imposed for a period longer than 5 years; and that in order to renew it for additional periods of up to 5 years each, an affirmative showing must be made that each such renewal is required by the public convenience and necessity.

Restrictions in an air carrier's certificate generally represent recognition of conditions affecting other carriers, especially with regard to impact on services provided by other carriers. Since such action is permanently imbedded into the air carrier's certificate, a restriction has a tendency to remain in a carrier's certificate without change until a formal CAB investigation has been conducted to investigate the need for perpetuating such service conditions. Since the CAB's route moratorium has been effective, there is no opportunity for the public to be heard with regard to the need for a change in such restrictions nor is there an incentive for the carriers to pursue the elimination of such restrictions. However, if restrictions were made temporary in nature, the CAB would automatically focus its attention on the need for the retention of such conditions. The burden of proof for the need to retain restrictions would be placed upon the individuals who would be adversely affected if the restriction were removed. If no demonstration by such individuals is made under the circumstances that prevail at the end of such 5-year period, then that restriction would be removed from a carrier's certificate. This, of course, enables the carrier to provide a more effective level of service in the market.

The conditions that prevailed at the time of the imposition of a restriction often times change in such a volatile, and growing industry. Therefore, this allows the regulatory process to maintain a timely evaluation of such conditions in order to allow the CAB to keep pace with technological developments.

4. Amend or supplement the existing statutory provisions to require the award of new competitive authority wherever it can be shown that the carriers' operations in the market will produce reasonable results. This proposed amendment is predicated upon the demonstrated fact that competition develops traffic, improves service, lowers fares, and lowers unit costs by expanding service and promoting efficiency, all for the public benefit.

Effective and constructive competition is the key to the complete development of the air transportation system operating with maximum efficiency with the lowest unit costs possible and, therefore, charging the lowest prices possible to the passengers. The CAB's Bureau of Operating Rights study developed an extensive analysis of the air transportation industry's operations between 1960 to 1972. The development of competitive routes produced solid benefits to the traveling public as well as economic benefits to the carriers.

Constructive two-carrier competition did not destroy the economic viability of the carriers. Constructive two-carrier competition improved service, lowered fares, lowered break-even load factor requirements, stimulated traffic development, stimulated technological development, lowered unit costs and extended significant air service improvement into other noncompetitive markets.

While the study did not conclude that competition was beneficial to the industry, the information in the study clearly demonstrates that this is the case. The growth of scheduled airline passenger traffic from 1960 to 1972 is overwhelmingly dominated by the growth experienced in the competitive markets. Comparative revenue passenger miles grew at 14.1 per year in competitive markets versus 11.6 percent per year in monopoly markets. An illustration of chart 10 (page 102) of the study is a dramatic display of the difference in development between the two, indicating that substantial market development, growth and stimulation takes place in competitive markets. Also, there has been no growth in the monopoly markets since the CAB's route moratorium started. When the moratorium began in 1970, traffic fell from the 1969 level in the monopoly markets (appendix A, table 7).

Competitive authorizations in the sixties often produced new single-plane service in monopoly markets causing traffic stimulation. The competitive route awards during the late sixties were the primary reason for most of the growth experienced in the monopoly markets during this period. Had it not been for this policy, not even the moderate growth experienced in the monopoly markets prior to 1969 would have been achieved.

"Moreover, growth rates in competitive markets are higher since, generally, they tend to be larger, rapid growth markets with higher traffic levels and lower

yields than monopoly markets" (page 105). This, in itself, is a very strong endorsement for competitive operations when possible. Prior to the CAB's route moratorium, after a service investigation in the market, the CAB found: "In some cases, however, competitive service was authorized simply because a market was large enough to support competitive service—on the theory that competitive service is per se, better than monopoly service" (page 50).

"Competition tends to reduce the actual yield received by a carrier, i.e., the dilution factor in competitive markets tends to be greater than noncompetitive markets" (page 97). Also, "Since competitive markets are on average of higher density than noncompetitive markets, route density should favor, again assuming other things equal, a lower break-even point in competitive markets" (page 97).

The extension of flights to additional cities usually inaugurates single-plane service between the new city and each of the other cities in the itinerary. This change in service is often the result of the award of new competitive service (page 75). The first single-plane beyond area proposals considered during the route cases of the sixties constituted a primary method by which the linear network was extended, and in many cases resulted in service patterns which could not have been sustained by other than a combination of traffic flows in several markets including the markets directly at issue (page 52). These beyond area benefits flow directly from the authorization of competitive service and contributed greatly to the growth in the monopoly market between 1960 and 1972.

The mandate in the Federal Aviation Act regarding the development of competition should be particularly important. The findings in the CAB's BOR study are not related to the material contained in the study and point the Civil Aeronautics Board on a course in the opposite direction with regard to competitive policy. The objective of the study appears to isolate on the principle that competition creates most of the problems in the air transportation industry, should be avoided in the future, and should be eliminated wherever possible.

The conclusion of the study is: "The system has offered, in general, an overall volume of service that is excessive in relation to demand in competitive markets" (page 8). With some hesitation the study concludes that competition drives load factors below the reasonable level and prevents carriers from achieving a 12 percent return on investment. Therefore, the CAB should adopt a policy through the implementation of standards, of avoiding this in the future in order to improve the economic conditions of the industry.

The study indicates that the key to developing the improved economic condition of the industry is to increase load factors; and that the key to increasing load factors is to eliminate competition as much as possible by discouraging competition in markets today, encouraging capacity restriction agreements and denying consideration for the authorization of competitive service in the future. The study concludes: "If any real improvement in load factors is to be achieved by a lessening in the degree of competition, it is necessary to establish monopoly status for the markets in question" (page 89). This, of course, is a gross oversimplification of the problem with regard to competition versus profits. No one denies that excessive competition or destructive competition hurts the industry and is not in the public interest. However, nowhere in the study is there any support for the concept that two-carrier competition creates these problems. Destructive competition creates these problems. Constructive competition has proven to be beneficial to the industry, the carriers and the traveling public. The particular features with regard to the determination for the need for competition on a route can only be obtained through the hearing process established by the Civil Aeronautics Board. Of course, if not contested, competitive route awards should be made automatically.

5. Amend or supplement the existing statutory provisions to require the board to adopt procedures for the prompt and expeditious handling of route cases similar to the present subpart m and n and show cause procedures, and to facilitate the expeditious processing of cases wherever possible.

The Board has within its rules and regulations at the present time methods to handle, expeditiously, route applications in order to avoid a prolonged administrative procedure dealing with every change in operating authority. These administrative vehicles are timely and efficient and far less costly for both the carriers and communities in terms of time and expenses when compared to participating in a normal CAB investigation.

When route case applications are uncontested, no hearing should be required. However, when there is a contested route case application, a quick determination should be made with regard to the scope of an investigation, and wherever possible expeditious treatment should be given consistent with the interests of the public.

Determining priority with regard to route policies has always been a monumental problem at the Civil Aeronautics Board and is a necessary part of the agency's discharge of its responsibilities. However, the effective handling of this area is both feasible and desirable and the CAB should be allowed to pursue the development of regulatory practices which permit it to function in this manner. If additional staff is to be required, we urge that the Congress support such a request. It may even be practical for the Civil Aeronautics Board to consider the possibility of maintaining a limited scale of operation outside of Washington similar to the manner of other government agencies in order to process more expeditiously the need for regulatory action in the other parts of the country.

6. Adopt legislation that will recognize air transportation as the basic functioning mass transportation system for intercity travel in this nation. As such there should be a legislative requirement that it be accorded a top priority fuel allocation that will meet the full need of the system and thereby encourage the most efficient use of available fuel supplied. Fuel limitations will cause a further shriveling and riddling of the nation's air transport services. This is the route to higher unit costs, higher air fares, higher load factors because of less available service, higher profits, a severe shrinkage in overall public accommodation, and a greater dependence upon the private automobile. Fuel shortages have provided and may soon again provide a primary excuse for a failure to respond to urgently needed new air transport services and in many instances will lead to a literal reduction in required public service.

The air transportation industry is the mass transportation system that is designed to meet the needs for the present, as well as for the future, of intercity travel. The cultivation and development of this industry can accomplish enormous economic benefits for our country, as well as create a condition, whereby we, as a country, can conserve fuel in a logical and sensible manner. The availability of fuel at a reasonable price is critical for the industry to grow and develop to meet the present and future needs of this nation. An effective regulatory atmosphere combined with this feature can produce an industry that can contribute greatly to the economic recovery of this country.

Growth has always been the key ingredient in the long history of decreasing unit costs in air transportation. Growth, resulting in lower unit costs, has enabled the airline industry in the past to offer a pricing structure that has made air transportation one of the highest quality and least inflationary services of any in this nation. Growth means lower unit costs and consequent ability to provide lower fares, which in turn means more traffic and more need for additional and better aircraft. This leads to more technological advancement resulting in the production of aircraft with lower seat mile costs, which again permits lower fares (or at least a lower rate of increase than nearly everything else); thus, more traffic, more growth, etc. When this occurs, it provides substantial additional stimuli to the national economy through expansion of employment in the airlines, the manufacturing companies, airports and all other air transport-related industries. Expansion and growth are absolutely vital to the industry.

7. Adopt legislation directing the Civil Aeronautics Board to establish classifications of markets or cities whereby priority of hearing can be decided within each such classification. The most urgent need in a small or medium market or small or medium sized city should be heard as quickly as the most urgent need in the nation's largest markets and largest cities. Without such a system, the critical needs of any less than the biggest may never be heard, for they will be constantly submerged further from the top.

The need for air transportation is not confined in any special category of cities. The need for air transportation exists in cities that are remote, as well as cities closely located to major metropolitan areas. The ability of the air transportation system to function effectively is to recognize this need on a timely basis for all types of cities in all types of circumstances.

At the present time, 18 airlines are certificated by the Federal government to meet this transportation need. Every opportunity should be granted to these carriers under the jurisdiction of the Federal government to meet this need. However, if these carriers are not fit, willing or able to meet this need, the certification of other carriers must be considered in order for the air transportation

industry to properly develop under a sensible regulatory atmosphere. The industry needs regulation. The industry needs positive incentives in order to develop the potential that presently exists. The potential of this industry is still in its infancy.

Enlightened Federal regulation is the key to the effective development of the air transportation industry. Air service to the small community must be developed as effectively as air service to the large community. This can only be done in a regulatory environment conducive to the complete development of an air transportation industry under a uniform system of regulatory incentives.

SAMPLES OF HIGH-LOAD FACTOR OPERATIONS
1973 AND 1974

Market	A			B			C			D			E		
	5 R.T.			2 R.T.			2 R.T.			6 R.T.			3 R.T.		
Nonstop Service	First Class	Coach	Total	First Class	Coach	Total	First Class	Coach	Total	First Class	Coach	Total	First Class	Coach	Total
1973															
Load Factor															
January	39%	74%	66%	22%	49%	44%	37%	50%	47%	56%	61%	60%	38%	74%	67%
February	34	66	58	18	44	39	42	61	56	62	65	65	42	71	65
March	37	73	66	25	46	42	22	58	49	64	67	66	38	71	65
April	31	67	60	27	52	48	43	66	60	67	66	66	38	79	70
May	35	69	62	38	58	55	65	80	76	77	72	73	48	79	73
June	47	79	73	34	56	52	8	11	10	82	72	74	31	67	60
July	43	79	73	31	50	47	38	59	54	60	85	80	25	65	57
August	54	83	78	28	53	49	44	67	62	60	69	68	28	66	59
September	31	67	61	31	52	48	45	63	59	59	68	66	25	55	49
October	31	67	61	37	55	42	48	59	56	67	67	67	32	57	52
November	49	73	68	55	65	63	73	84	82	68	70	70	42	67	62
December	49	75	71	40	65	61	63	78	75	64	72	71	39	71	64
12-Mo. Avg.	40	73	66	32	54	49	44	61	57	66	70	69	36	69	62
1974															
Load Factor															
January	37	65	60	44	70	66	67	81	78	54	73	69	42	81	71
February	34	64	59	56	77	74	73	84	81	53	74	70	37	76	66
March	42	71	66	63	83	79	69	77	75	54	78	73	46	82	73
April	36	69	63	67	85	82	73	78	76	60	83	78	41	78	69
May	34	67	61	65	84	81	78	83	82	59	77	73	37	68	61
June	53	79	75	66	86	83	54	70	66	66	85	81	37	75	67
12-Mo. Avg.	41	72	66	49	69	64	60	74	71	60	75	67	36	71	63

SOURCE: Actual experience in market (not identified due to confidential information requirement).

PROFIT LEVERAGE CREATED BY INCREASED LOAD FACTORTYPICAL

Block Hours ^{1/}	1:48	1:48	1:48	1:48	1:45
Miles ^{1/}	653	653	653	653	653
Equipment ^{2/}	B727	B727	B727	B727	B727
Seats	101	101	101	101	101
Load Factor	55%	60%	65%	70%	75%
Passengers	56	61	66	71	76
Revenue ^{3/}	\$2,890	\$3,148	\$3,406	\$3,664	\$3,922
Operating Costs: ^{4/}					
Traffic ^{5/}	911	992	1,073	1,154	1,236
Capacity ^{6/}	1,545	1,545	1,545	1,545	1,545
Total	<u>2,456</u>	<u>2,537</u>	<u>2,618</u>	<u>2,699</u>	<u>2,781</u>
Operating Profit	434	611	788	965	1,141
Interest ^{7/}	85	85	85	85	85
Taxes @ .52%	181	274	366	458	549
Profit	<u>\$ 168</u>	<u>\$ 252</u>	<u>\$ 337</u>	<u>\$ 422</u>	<u>\$ 507</u>
Investment ^{7/}	\$1,820	\$1,820	\$1,820	\$1,820	\$1,820
After Tax Profit Plus Interest	253	337	422	507	592
Return on Investment	13.9%	18.5%	23.2%	27.9%	32.5%

PROFIT LEVERAGE CREATED BY INCREASED LOAD FACTORTYPICALFootnotes

- 1/ Average aircraft block time per flight.
- 2/ Predominant equipment used in this market
- 3/ Actual revenue, assuming 80% of the passengers in coach, per passenger at \$51.60 based on November, 1973 fares.
- 4/ Costs based on functional costs used in the Domestic Passenger Fare Investigation experienced in 1973.
- 5/ At \$16.26 per passenger.
- 6/ At \$1,545.00 per flight.
- 7/ Based on investment mix established by CAB at 45% debt and 55% equity. Debt return calculated at 6.2% and equity after takes at 16.75%.

PSA LOAD FACTOR HISTORY
1967 - FY 1972

<u>Period</u>	<u>Load Factor</u>		
	<u>Los Angeles</u>		
	<u>San Francisco</u>	<u>San Jose</u>	<u>Oakland</u>
1967	68%	63%	67%
1968	59	59	63
1969	54	51	54
1970	56	53	59
1971 - 1st Quarter	53	48	57
2nd Quarter	58	55	60
3rd Quarter	61	48	63
4th Quarter	60	54	59
1972 - 1st Quarter	60	54	60
2nd Quarter	61	58	64

Source: California Public Utilities Commission
Form No. 1504

AIRPORT OPERATORS COUNCIL INTERNATIONAL, INC.,
March 4, 1975.

Hon. EDWARD M. KENNEDY,
U.S. Senate,
Washington, D.C.

DEAR SENATOR KENNEDY: On February 18, your subcommittee received testimony on the subject of Civil Aeronautics Board Regulation of Airline Route Awards from Mr. James Gagnon, Chairman of the AOCI ad hoc committee on air service and general manager of the Louisville and Jefferson County (Kentucky) Air Board.

Because of the subcommittee's need to receive the prepared testimony a number of days in advance of the public hearing, the draft text of Mr. Gagnon's presentation and the many attachments to his prepared testimony could not be reviewed by the AOCI Board of Directors in advance of his scheduled appearance on February 18.

The AOCI Board of Directors at its meeting on February 20 did, however, review the testimony of Mr. Gagnon with a view toward determining whether his position, as presented to the subcommittee, reflected the views of all AOCI members.

The AOCI Board concluded, and directed that we so communicate to you, that the views expressed by Mr. Gagnon on the issue of the CAB route moratorium are supported by the full AOCI membership to the extent consistent with the attached resolution of October 6, 1974.

All other issues addressed by Mr. Gagnon at this time reflect only his individual views or those of the ad hoc committee he presently chairs and should not be considered the official views of this association or its entire U.S. membership. Specifically, the CAB staff study on the "Domestic Route System: Analysis and Policy Recommendations" (October 1974), on which Mr. Gagnon commented, has not been reviewed by AOCI at this time. Copies of our formal comments on the study, due to the Board by May 1, will be forwarded to your subcommittee for its information. Further, the AOCI membership at this time does not endorse any of the specific legislative recommendations set out in Mr. Gagnon's text. While AOCI may well, after review of the ad hoc committee's findings, support some or all of its legislative proposals, they do not have any AOCI endorsement at the current time.

Should AOCI support any legislative proposals for improving the process for CAB action on air route matters, you may be assured that these would be communicated to your subcommittee as well as to the Senate Aviation Subcommittee which has substantive jurisdiction over the Civil Aeronautics Board.

We would request that this clarification of AOCI's views on the issues before your subcommittee be placed in the printed record of your hearings, in conjunction with Mr. Gagnon's testimony, to minimize any confusion resulting from the testimony.

We apologize for any inconvenience that might have been caused to the subcommittee by the inability of our Board of Directors to review the prepared testimony of its Air Service Committee in a timely manner prior to its presentation on February 18.

Sincerely,

DONALD G. SHAY,
President.

Attachment.

MORATORIUM ON AIR ROUTE HEARINGS

Whereas, the Civil Aeronautics Board is engaged in a moratorium on its regulatory activities involving the potential authorization of new, altered and/or competitive air service patterns within the U.S. domestic air transportation system; and

Whereas, it is the conviction of AOCI that this moratorium is in conflict with the law and legislative mandate of Congress; and

Whereas, this moratorium has detrimental impact upon the public interest, contrary to the provisions of Congress through its legislation; and

Whereas, the AOCI does represent the broadest single segment of public interests in aviation matters, and therefore is best suited to represent the public interest before the Congress and Civil Aeronautics Board;

Now, Therefore, Be It Resolved, by the Airport Operators Council International in meeting assembled, that

1. The AOCI Policy Handbook be further amended by the addition of a new section 6.15, Moratorium on Air Route Hearings, as follows:

6.15 MORATORIUM ON AIR ROUTE HEARINGS

AOCI requests and urges the Civil Aeronautics Board to rededicate its efforts in the spirit and intent of the Federal Aviation Act of 1958, as amended, to further develop the domestic air transportation system in the public interest. In the view of airport operators, the CAB should immediately reinstate the judicial and evidentiary processes contained in its rules of practice in economic proceedings, involving the potential authorization of new, altered and/or competitive air service; and

2. The AOCI ad hoc committee on air service is urged to prepare and implement a program involving the entire domestic membership in an effort to bring to the attention of Congress that the public convenience and necessity for adequate air services can no longer be met by continuation of the moratorium; and

3. The executive vice president is directed to forward copies of this resolution to the Chairman and members of the Civil Aeronautics Board, and to the President of the United States, the Vice President of the United States in his capacity as President of the Senate, and to the Speaker of the House of Representatives.

Adopted at the general membership business meeting of the Airport Operators Council International on October 10, 1974.

[The following prepared statement by Robert J. Aaronson, State Aviation Administrator, Maryland Department of Transportation, was also submitted for the record.]

FEDERAL REGULATION OF ROUTE AWARDS

Robert J. Aaronson

The State of Maryland is the owner and operator of Baltimore-Washington International Airport. The management of the airport rests with the State Aviation Administration, Maryland Department of Transportation.

Baltimore-Washington International Airport (BWI) was first opened to commercial airline service in June of 1950. At the time the facilities were constructed, the airport was the most advanced in the nation. For many years the airport served the airlines and the traveling public well. When the Baltimore-Washington Parkway was built in 1954, a high-speed connector road was provided directly into the terminal, facilitating access to the airport from all directions. This development was to attain greater importance in the following years, with the introduction of commercial jet services at the facility. The airport was the east coast terminus of the recordbreaking transcontinental flight by the first Boeing 707 jetliner in 1957, and 2 years later in 1959, was the scene of federal certification ceremonies for the Douglas DC-8. The foresight of the City of Baltimore in building this airport, with its extensive facilities, provided the Baltimore-Washington area with its only jet airport until the opening of Dulles Airport in 1962.

However, by the late sixties, Friendship International Airport, as the airport was then called, had not kept pace with industry growth and its facilities were generally considered inadequate by both passengers and airlines. Recognizing the importance of the airport facility to the Maryland/Virginia/D.C./central Pennsylvania region, the State of Maryland purchased the airport in July of 1972.

In January of 1973, Secretary of Transportation Harry R. Hughes, and State Aviation Administrator Robert J. Aaronson, announced an ambitious, two-fold plan to upgrade, improve and modernize all airport facilities and service. The \$50 million improvement and modernization program will create an airport which presents an entirely new face to the traveler. The entire program is planned for completion in time for the nation's bicentennial celebration.

On November 16, 1974, the airport was renamed Baltimore-Washington International Airport, a name which readily identifies the important regional character

of the airport service area. As attachment 1 indicates, Baltimore-Washington International Airport is the only airport among the three serving this area which conveniently serves both Baltimore and Washington. While both National Airport and Dulles Airport provide important public benefits to the Washington, D.C. air traveler, neither airport conveniently serves the Baltimore traveler. The basis for these statements is a recent survey of air passengers departing the area's three airports. The survey was conducted through the cooperative efforts of the Maryland Department of Transportation, the Commonwealth of Virginia and the Washington Council of Governments.

In addition to initiating a program for the development of airport facilities, the State of Maryland has also undertaken a program to improve and expand the air services which are required at Baltimore-Washington International Airport. The State has recently completed a comprehensive review of air service in the Baltimore/Washington consolidated metropolitan area and has projected scheduled air service requirements at Baltimore-Washington International Airport, requirements which recognize the unique role played by this airport.

The air service analysis centers upon the top 50 ranking Baltimore/Washington markets. These are all large and important markets, with even the 50th ranking market, Columbia, S.C., generating in excess of 150 daily passengers. Maryland's analysis indicates that nonstop service between Baltimore-Washington International Airport and each of these 50 cities is currently required by the public and can be operated at a profit. Attachment 2 tabulates by market 1975 passengers who would use BWI, provided adequate nonstop service is available.

Attachment 3 lists Baltimore/Washington's top 50 markets and indicates the nonstop authority possessed by each of the 12 airlines serving this area differentiating between Baltimore-Washington International Airport, National Airport, and Dulles Airport. The attachment also indicates where nonstop authority is not currently being used; that is, where no nonstop round-trip service is operated by the subject carrier, as of February 1, 1975. This attachment clearly shows the inadequate service level at BWI. For example, United Airlines has BWI nonstop authority in 31 of the top 50 Baltimore/Washington markets. However, United operates nonstop service in only 8 of these 31 markets. Both American Airlines and TWA have nonstop authority to and from BWI in 15 markets, but only operate in two. As can be seen, this pattern is reflected in the BWI operations of other carriers.

Maryland's program to improve air service at Baltimore-Washington International Airport is based in part upon efforts by the state to persuade airlines with existing authority to provide the needed service. Maryland believes that this approach will be successful in developing some of the needed service. Where nonstop service has been authorized and is economically feasible, nonstop service should be provided. However, where a CAB-authorized airline is unwilling or unable to provide the required service, Maryland will seek new authority for another interested carrier. This new authority, of course, requires CAB action.

1970-1975 Route Award Moratorium

Unfortunately, through the actions of the Civil Aeronautics Board which support statements made by Board members and staff, there has been, since 1970, a moratorium in the granting of new route authority, or even hearing applications for new route authority. For example, the CAB's Bureau of Operating Rights (BOR) study, *The Domestic Route System*, states in the foreword:

"Since approximately 1970, cases involving new domestic route authority have generally not been set for hearing, and applications filed under subpart M and N have been stayed or dismissed. Instead, the Board has accorded priority to other matters, principally in the area of rates and enforcement, as well as certain other route and route-related actions."

The Domestic Route System Analysis and Policy Recommendation By the Bureau of Operating Rights

The CAB staff study conducted by the BOR contains recommendations which, if adopted, would formalize in CAB regulations the now informal moratorium on route awards. Generally, the proposed regulations or standards present severe economic obstacles to the continued development of air transportation in this country. As can be seen by the situation at Baltimore-Washington International Airport (attachment 3) certain sectors of the United States' air transportation

system require further development, including new route awards and redistribution of unused authority. Maryland's program of air service development will be seriously damaged, not only by the inability to gain favorable CAB action on requests for new market entry by willing and able carriers, but also in carrier negotiations because carriers with unused authority will feel protected by the CAB.

For example, there are an estimated 228 daily passengers available to support nonstop service between BWI and St. Louis, Baltimore/Washington's 15th ranking market (attachment 2).

Eastern and TWA possess nonstop authority but nonstop service is not provided by either carrier (attachment 3). This level of traffic would support two round-trip nonstop flights in DC-9 or B-727 aircraft and develop a 61 percent passenger load factor. The passenger load factor required to cover all costs plus a full 12 percent return on investment is only 53 percent, indicating that two round-trips should be profitable to either carrier.

Maryland plans to discuss this analysis with Eastern and TWA in an attempt to persuade one or both carriers to provide nonstop service (in the past, as many as 2½ round-trip nonstops have been provided by TWA). If this effort is unsuccessful, Maryland will approach Allegheny which now has onestop authority (and service) in this market to see if this carrier is interested in providing nonstop service. If so, a request for a restriction removal will be made at the CAB. If not, another carrier will be approached.

If, because of either a formal or an informal route moratorium, there is little likelihood that the CAB would award new BWI-St. Louis nonstop authority—and this is known in advance by Eastern and TWA—these two carriers will feel no pressure during discussions with us to agree to operate the required, profitable BWI-St. Louis nonstop service. Their unused authority would be protected by the CAB and an economic opportunity denied another willing carrier. And of course, a public need goes unserved.

I will now briefly review these "standards" proposed by the Bureau of Operating Rights, indicating how they would further the current moratorium on route development.

First Nonstop Service Standard

The standard proposed by the Bureau before allowing first nonstop service in a market is:

"* * * true O&D plus flow traffic, for the previous 12 months . . . sufficient to maintain a 55 percent load factor on two roundtrips with the smallest aircraft type commonly used in city-pairs of similar mileage range." (page 165)¹ "Nonstop service is the level at which air travel has its greatest advantage and it is incumbent upon the Board to assure the availability of such service whenever economically possible." (page 167)

This standard is counterproductive if the CAB truly seeks to maximize nonstop services. It is based upon the actual traffic flows in a market prior to first nonstop service. New nonstop service will obviously stimulate the development of traffic in the local market, as well as improve the amount of through traffic travelling over the city-pair segment to or from other cities. This new traffic is not considered by the study standard in determining the need for nonstop service despite the fact that the CAB has historically relied on this traffic in granting new authority.

In addition the proposed standard allows, to a large extent, the incumbent carrier to control market entry instead of the CAB. For example, since historic traffic controls the requirement for first nonstop service, the incumbent carrier can restrict local market development by operating at very high load factors (but under 75 percent) and can, through schedule manipulation, redirect or minimize beyond passenger flows. Onestop service can be operated until passengers practically beat down the carrier's doors demanding nonstop service. Thus the carrier can operate just one nonstop service, but carefully control the load factor with multistop flights, without ever facing the real prospect of having this market meet the requirements for additional nonstop service.

¹ For markets over 2,000 miles in length, high capacity wide-body aircraft are used for this standard, insuring no new long range markets will be adequately developed. The BOR study, in fact, indicates first nonstop service would be required in only one new long range market by 1985. (page 144)

First or Additional Competitive Authority

Under this standard, one, the proposed operations must earn a full 12 percent return on investment in the first year; two, traffic diversion from incumbent carriers cannot exceed 35 percent; and three, the incumbent carriers' return on investment cannot, because of the new authority, be reduced either below 6 percent by $\frac{1}{2}$ or more.

The first comment on this standard, of course, is that it is simply unreasonable to expect such a high return on investment in the very first year of operation. At the beginning of the first year, because of lack of market identity, the new carrier will earn less than a 12 percent ROI. As the year progresses, the new carrier must progressively improve its ROI so that the year will average 12 percent. This means a greater than 12 percent ROI by year's end (and a load factor higher than 55 percent). If for some unusual reason, the new carrier could achieve a 12 percent ROI in the first year, the second year will clearly result in excess profits and public disservice in the form of high load factors—particularly if the CAB considers annual load factors up to 75 percent as reflecting adequate public service.

Secondly, few markets, if any, can meet this requirement using reasonable, accepted traffic forecasting methods and, thus, the route moratorium will be automatically perpetuated.

The 55-Percent Load Factor Standard

The BOR study professes to adopt the rate-making benchmarks established in the domestic passenger fare investigation (DPFI). In actuality, what the BOR has done is to take the DPFI industry average 55-percent load factor standard and make it the carrier and market minimum load factor standard. The 55 percent passenger load factor standard is, in reality, a CAB desired average for trunk carrier coach service. It was not a flat standard, but varies by mileage block, with long-haul and short-haul markets having lower load factor standards (approximately 50 percent at transcontinental distances).

The BOR study has used 55 percent as a minimum load factor at all mileage blocks and has expanded it to include first-class service and local-service carriers—an action the Board specifically refused to take in the DPFI.

The 12-Percent Return on Investment Standard

Again, the BOR twists the meaning of the ratemaking standards adopted by the CAB in the DPFI. The 12 percent ROI standard is an industry average, based on trunk carrier operations. The BOR study includes local service carriers and makes this standard a by-carrier, by-market minimum and not an industry average.

General Comments

The objective of the BOR study appears to develop the principle that competition is bad and has been the cause of the air transportation industry's financial problems.

"The system has offered, in general, an overall volume of service that is excessive in relation to demand in competitive markets." (page 8)

AND

"However, the load factor analysis conducted as part of this study together with the results of other studies, supports the general conclusion that competition does limit profitability." (page 8)

AND

". . . the present trunk system is so highly competitive, in terms of service, that there is some question whether trunk carriers will be able to achieve average load factors sufficient to enable to earn a 12-percent return on investment on a consistent basis." (page 8)

AND

"If any real improvement in load factors is to be achieved by a lessening in degree of competition, it is necessary to establish monopoly status for the markets in question." (page 89)

No one will argue that excessive or destructive competition is good for this country's air transportation system. However, there is no support in the study

for the fact that two carrier competition has these characteristics. In fact, the study presents the main reason for excessive capacity at page 56:

"The overall level of service provided in relation to demand is, however, primarily a function of rate policy."

Contrary to the tone of the recommendations at the end, the BOR study strongly supports the position that the CAB's route development policy of the 1965-69 period created enormous benefits for the industry and the travelling public through lower unit costs, lower fares, and improved air service. The authorization of competitive service was given much of the credit.

"Moreover, growth rates in competitive markets are higher since, generally, they tend to be the larger, rapid growth markets with higher traffic levels and lower yields than monopoly markets." (page 105)

Thus, viewing the study from an overall standpoint, it displays a troublesome degree of inconsistency between its basic study analyses and its recommended standards.

One of the most dangerous features of all is that the BOR-recommended standards would operate effectively to block the Board members from exercising fundamental responsibilities placed upon them by the Federal Aviation Act of 1958. Under the recommended standards, the staff—not the Board—would decide what applications would (or would not) reach the Board for decision. Such prejudgment by the CAB's staff hardly conforms to the intent of Congress that the Board members themselves should bear the decisional responsibility with respect to all route applications.

Further, the airlines should fear the domination of their affairs now proposed by the BOR. While today, these standards may favor the financial interests of the airlines, tomorrow the standards may not—but the carriers will be powerless to change the process.

One shudders to think of the type of air transportation system this country would have if these standards had been in effect the past 25 years.

Recommended Legislation

Historically, the Civil Aeronautics Board has been the finest and most expertly run of this government's regulatory agencies. The development of air transportation in this country, as compared with other countries, is a testament to the soundness of the law which created the CAB. Radical changes will be destructive and costly to the travelling public in terms of poorer service and higher fares which would inevitably be created by the resulting turmoil. However, in recent years the CAB has become so concerned with the financial well-being of the industry, that genuine public interest considerations are hard to discern in the CAB's majority opinions. There is also rising concern that the CAB staff is assuming responsibilities granted to the CAB which by law can only be exercised by the Board members. While the basic law remains sound, Congress should provide greater direction for the CAB through more specific policy guidelines. The following suggestions are respectfully submitted:

1. Public interest considerations must be faced and dealt with effectively as a major factor in the decisional process. This country's commerce depends upon reliable, reasonably priced, and convenient air service. While the carriers' financial well-being is important, the provision of adequate air service to the public remains the underlying goal.

2. Competition helped build the finest air transportation system in the world. To maintain and expand this quality of air service, the CAB shall authorize competitive service whenever a market grows to the point where competitive service is economically feasible.

3. In recognition of the fact that numerous unjustified and outmoded CAB-imposed restrictions currently encumber carriers' ability to operate nonstop service and that, in many cases, these restrictions were imposed without an affirmative showing of need, provisions shall be made for immediate review of all restrictions. None should be renewed unless an affirmative public convenience and necessity showing is made. Further, any restriction so-renewed and newly imposed restrictions shall be for a set period of time after which an additional showing of need shall be required for subsequent renewal.

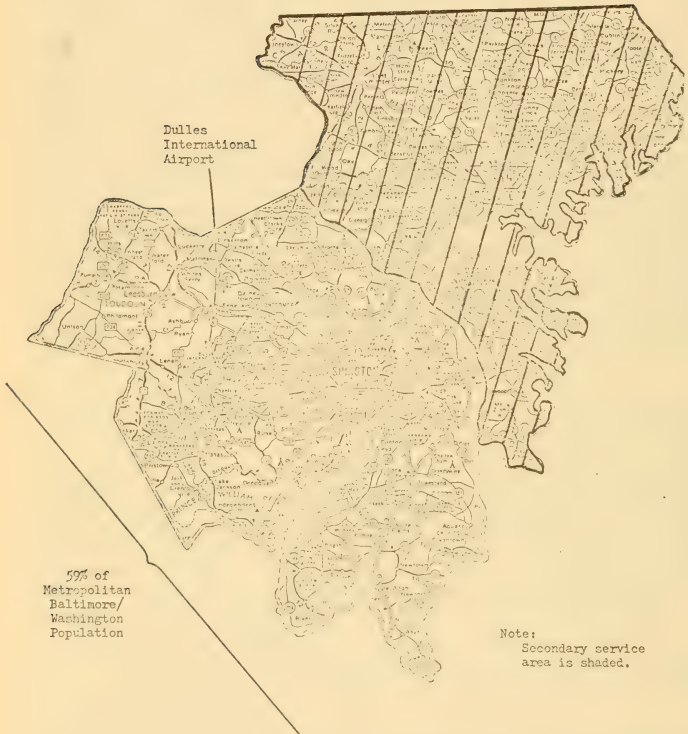
4. Where an air carrier possesses unused authority and refuses to use such authority, after a reasonable period of time, it shall be transferred to any willing carrier who can demonstrate that the proposed service will be economical.

5. In recognition of the fact that air transportation is the basic mass transportation mode for intercity passenger travel, the Board shall give precedence to the public interest in adequate air transportation whenever making any decision or taking any action that involves fuel policy, including disposition of route applications.

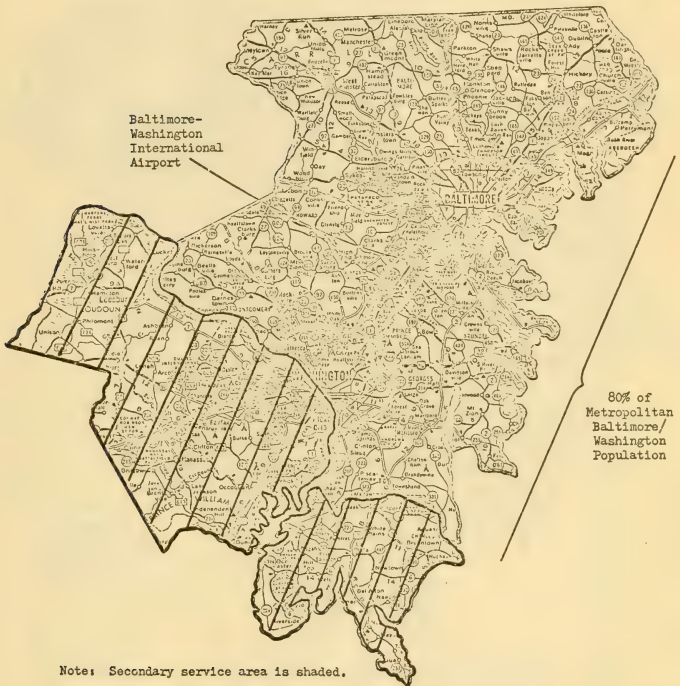
Attachments.

ATTACHMENT 1

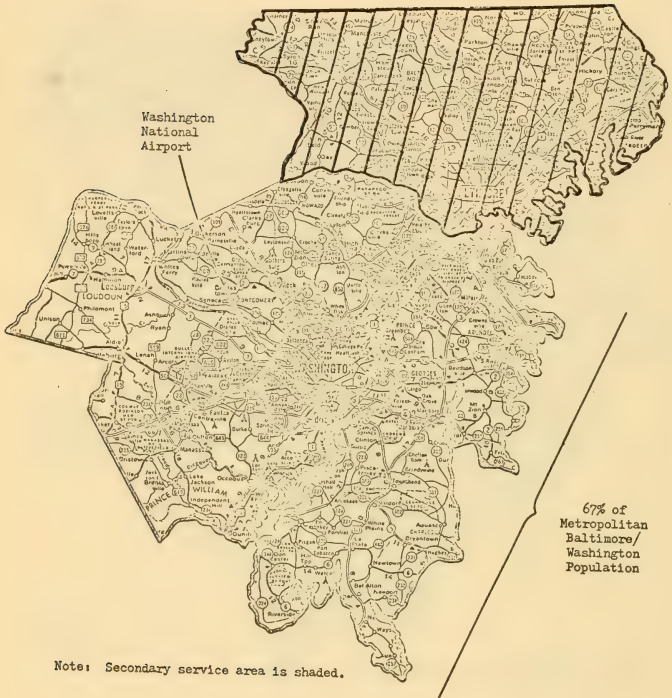
DULLES INTERNATIONAL AIRPORT'S PRIMARY AND SECONDARY
SERVICE AREAS WITHIN METROPOLITAN BALTIMORE/WASHINGTON



BALTIMORE-WASHINGTON INTERNATIONAL AIRPORT'S PRIMARY AND SECONDARY
SERVICE AREAS WITHIN METROPOLITAN BALTIMORE/WASHINGTON



WASHINGTON NATIONAL AIRPORT'S PRIMARY AND SECONDARY
SERVICE AREAS WITHIN METROPOLITAN BALTIMORE/WASHINGTON



ATTACHMENT 2

ESTIMATED 1975 BALTIMORE/WASHINGTON
PASSENGERS USING BALTIMORE-WASHINGTON INTERNATIONAL
AIRPORT UNDER ADEQUATE NONSTOP SERVICE CONDITIONS
Top 50 Markets

Rank	Between Baltimore/ Washington and:	1975 Daily Passengers Through BWI Airport	
		Local Market	Local Market Plus Beyond Market Flown
1	New York/Newark	1,111	1,390
2	Boston	765	997
3	Chicago	1,109	1,241
4	Miami/Ft. Lauderdale	486	503
5	Los Angeles	515	561
6	Atlanta	1,028	1,197
7	San Francisco	384	410
8	Detroit	245	249
9	Pittsburgh	453	540
10	Philadelphia	137	757
11	Dallas/Ft. Worth	313	461
12	Cleveland	306	326
13	Hartford	260	545
14	Norfolk	203	372
15	St. Louis	151	228
16	Denver	365	409
17	Minneapolis/St. Paul	134	153
18	Providence	179	308
19	Raleigh/Durham	136	263
20	Buffalo	147	241
21	Houston	222	372
22	Cincinnati	189	452
23	Columbus, OH.	125	170
24	New Orleans	250	440
25	Minneapolis	185	383
26	Tampa	113	189
27	Kansas City	174	478
28	Orlando	141	236
29	Richmond	116	201
30	Albany	249	431
31	Dayton	81	111
32	Rochester	67	97
33	Louisville	73	90
34	Newport News	110	229
35	Memphis	64	146
36	Seattle	108	113
37	Roanoke	173	264
38	San Diego	120	213
39	Syracuse	71	128
40	Charlotte	86	110
41	Greensboro	81	94
42	Jacksonville	68	205
43	Knoxville	73	119
44	Nashville	61	117
45	Charleston, S.C.	66	115
46	Milwaukee	49	78
47	Charleston, W.VA.	87	140
48	Huntsville	74	74
49	Phoenix	94	187
50	Columbia	79	90

ATTACHMENT 3

USED AND DENIED NONSTOP AUTHORITY IN
FALLING ORDER OF TOP 50 TARGETS

Rank	Between Baltimore/Washington and:		All other			American			Braniff			Delta		
			BAL	DCA	IAD	BAL	DCA	IAD	BAL	DCA	IAD	BAL	DCA	IAD
1	New York	NYC	NYC	-	-	NYC	NYC	NYC	NYC	NYC	NYC	NYC	NYC	NYC
2	Boston	BOS	BOS	BOS	BOS*	BOS	BOS	BOS*				BOS	BOS	BOS*
3	Chicago	CHI				-	CHI	CHI*						
4	Miami	MIA										MIA*	MIA*	MIA*
5	Los Angeles	LAX				LAX*	-	LAX						
6	Atlanta	ATL										ATL	ATL	ATL
7	San Francisco	SFO												
8	Detroit	DTT												
9	Pittsburgh	PIT	PIT	-	-									
10	Philadelphia	PHL	PHL	PHL	PHL*	PHL	PHL	PHL*				PHL	PHL	PHL*
11	Dallas	DAL				DAL	-	DAL	-	-	DAL			
12	Cleveland	CLE												
13	Hartford	BDL	BDL	BDL	BDL*	BDL	BDL	BDL*				BDL	BDL	BDL*
14	Norfolk	ONF												
15	St. Louis	STL												
16	Denver	DEN												
17	Minneapolis	MSP												
18	Providence	PVD	PVD	PVD	PVD*	PVD	PVD	PVD*						
19	Buffalo	BUF												
20	Buffalo	BUF	BUF	BUF	BUF*									
21	Houston	IAH										IAH*	-	IAH*
22	Cincinnati	CVG	CVG	-	-	CVG	CVG	CVG*						
23	Columbus, O.	CMH												
24	New Orleans	MSY										MSY	-	MSY*
25	Indianapolis	IND	IND	-	-	IND	IND	IND*						
26	Tampa	TPA										TPA	TPA	TPA*
27	Kansas City	MCI												
28	Orlando	MCO												
29	Richmond	KIC												
30	Albany, NY	ALB	ALB	ALB	ALB*									
31	Dayton	DAY												
32	Rochester, NY	ROC	-	ROC	ROC*									
33	Louisville	SGF												
34	Newport News	WME												
35	Memphis	MEM				MEM	MEM	MEM*	-	MEM	MEM*			
36	Seattle	SEA												
37	Rockne	RQA												
38	San Diego	SAN				SAN	-	SAN						
39	Syracuse	SYR	-	SYR	SYR*									
40	Charlotte	CLT										CLT*	CLT*	CLT*
41	Greensboro	GSO												
42	Jacksonville	JAX										JAX*	JAX*	JAX*
43	Knoxville	TYS				TYS	TYS	TYS*						
44	Nashville	BNA				BNA	BNA	BNA*	-	BNA	BNA*			
45	Charleston, S.C.	CHS												
46	Milwaukee	MKE												
47	Charleston, W.Va.	CRW	CRW	-	-	CRW	CRW	CRW*						
48	Huntsville	HSV												
49	Phoenix	PHX				PHX	-	PHX						
50	Columbia, S.C.	CAL										CAE*	CAE*	CAE*

*No nonstop round-trip service (February 1, 1975) by the subject carrier.

BMI = Baltimore-Washington International Airport

DCA = National Airport

IAD = Dulles International Airport

USLD AND DATED NONSTOP AUTHORITY IN
BALTIMORE/WASHINGTON'S TOP 50 MARKETS

Rank	Between Baltimore/Washington and:		To From			National			Northwest			Other		
			BWI	DCA	IAD	BWI	JAX	IAD	BWI	DCA	IAD	BWI	DCA	IAD
1	New York	NYC	NYC	NYC	NJC*	NYC	NYC	NYC*	-	NYC	NYC*	-	-	NYC
2	Boston	BOS	BOS*	BOS	BOS*	BOS*	BOS*	BOS*						
3	Chicago	CHI												
4	Miami	MIA	MIA	MIA	MIA*	MIA*	MIA	MIA*						
5	Los Angeles	LAX												
6	Atlanta	ATL	ATL	ATL	ATL*									
7	San Francisco	SFO												
8	Detroit	DTT							-	DTT	DTT*			
9	Pittsburgh	PIT							-	PIT	PIT*			
10	Philadelphia	PHL	PHL	PHL*	PHL*	PHL*	PHL	PHL*						
11	Dallas	DAL												
12	Cleveland	CLE							-	CLE	CLE*			
13	Hartford	BDL	BDL	BDL	BDL*									
14	Norfolk	ORF				ORF*	ORF	ORF*						
15	St. Louis	STL	STL*	STL	STL*									
16	Denver	DEN												
17	Minneapolis	MSP							MSP*	MSP	MSP*			
18	Providence	PVD	PVD*	PVD*	PVD*	PVD*	PVD*	PVD*						
19	Wichita	RDU	RDU	RDU	RDU*									
20	Buffalo	BUF												
21	Houston	IAH	IAH*	-	IAH									
22	Cincinnati	CVG												
23	Columbus, O.	CMH												
24	New Orleans	MSY	MSY*	-	MSY*									
25	Indianapolis	IND												
26	Tampa	TPA	TPA*	TPA	TPA*	TPA*	TPA	TPA*						
27	Kansas City	MCI												
28	Orlando	MCO	MCO*	MCO	MCO*	MCO*	MCO	MCO*						
29	Richmond	RIC	RIC*	RIC*	RIC*									
30	Albany, NY	ALS												
31	Dayton	DAY												
32	Rochester, NY	ROC												
33	Louisville	SDF	SDF*	SDF	SDF*									
34	Newport News	PHF				PHF*	PHF	PHF*						
35	Memphis	MEM												
36	Seattle	SEA							-	-	SEA			
37	Roanoke	ROA												
38	San Diego	SAN												
39	Syracuse	SYR	SYR*	SYR	SYR*									
40	Charlotte	CLT	CLT*	CLT	CLT*									
41	Greensboro	GSO	GSO*	GSO	GSO*									
42	Jacksonville	JAX	JAX*	JAX	JAX*	JAX*	JAX	JAX*						
43	Knoxville	TYS												
44	Nashville	BNA												
45	Charleston, S.C.	CHS	CHS*	CHS*	CHS*	CHS*	CHS	CHS*						
46	Milwaukee	MKE							MKE*	MKE	MKE*			
47	Charleston, W.Va.	CRW												
48	Huntsville	HSV												
49	Phoenix	PHX												
50	Columbia, S.C.	CAL	CAL*	CAL	CAL*									

*No nonstop round-trip service (February 1, 1975) by subject carrier.

BWI = Baltimore-Washington International Airport

DCA = National Airport

IAD = Dulles International Airport

USED AND UNUSED NONSTOP AUTHORITY IN
BALTIMORE/WASHINGTON'S TOP 50 MARKETS

Rank	Between Baltimore/Washington and:		Frontier BWI DCA IAD		Southern BWI DCA IAD		TWA BWI DCA IAD		United BWI DCA IAD	
1	New York	NYC	-	-	NYC	-	-	NYC* NYC* NYC*	-	NYC* NYC* NYC*
2	Boston	BOS						BOS* BOS* BOS*		BOS* BOS* BOS*
3	Chicago	CHI						CHI CHI CHI*		CHI CHI CHI
4	Miami	MIA								
5	Los Angeles	LAX						LAX* - LAX		LAX* - LAX
6	Atlanta	ATL								ATL* ATL* ATL*
7	San Francisco	SFO						SFO - SFO		SFO - SFO
8	Detroit	DTT								DTT* DTT* DTT*
9	Pittsburgh	PIT								PIT* PIT* PIT*
10	Philadelphia	PHL						PHL* PHL* PHL		PHL* PHL* PHL*
11	Dallas	DAL								
12	Cleveland	CLE								CLE* CLE* CLE*
13	Hartford	HTF						BDL* BDL* BDL*		BDL* BDL* BDL*
14	Norfolk	ORF	-	ORF	ORF*					ORF* ORF* ORF*
15	St. Louis	STL						STL* STL* STL*		
16	Denver	DEN						DEN* - DEN		DEN - DEN
17	Minneapolis	MSP								MSP* MSP* MSP*
18	Providence	PRO								
19	Raleigh	RAO								RAO* RAO* RAO*
20	Buffalo	BUF								BUF* BUF* BUF*
21	Houston	HOU								
22	Cincinnati	CIN						CVG* CVG* CVG*		
23	Columbus, O.	CMH						CMH* CMH* CMH*		CMH* CMH* CMH*
24	New Orleans	MSY								MSY* - MSY*
25	Indianapolis	IND						IND* IND* IND*		
26	Tampa	TPA								
27	Kansas City	MCI						MCI* - MCI*		MCI - MCI
28	Orlando	MCO								
29	Richmond	RIC	-	RIC	RIC*					RIC* RIC* RIC*
30	Albany, NY	ALB								
31	Dayton	DAY						DAY* DAY* DAY*		DAY* DAY* DAY*
32	Rochester, NY	ROC								ROC* ROC* ROC*
33	Louisville	LOU								
34	Newport News	PHF	-	PHF*	PHF*					PHF* PHF* PHF*
35	Memphis	MEM								MEM* MEM* MEM*
36	Seattle	SEA								SEA* - SEA*
37	Knoxville	ROA	ROA*	ROA	ROA*					
38	San Diego	SAN								SAN* - SAN*
39	Syracuse	SYR								
40	Charlotte	CLT								CLT* CLT* CLT*
41	Greensboro	GSO	GSO*	-	-					GSO* GSO* GSO*
42	Jacksonville	JAX								
43	Knoxville	TYS								TYS* TYS* TYS*
44	Nashville	DNA								
45	Charleston, S.C.	CHS								
46	Milwaukee	MKE								MKE* MKE* MKE*
47	Charleston, W.Va.	CVN	-	CVN	-					
48	Huntsville	HSV								HSV* HSV* HSV*
49	Phoenix	PHX						PHX* - PHX		
50	Columbia, S.C.	CAL								

*No nonstop round-trip service (February 1, 1975) by subject carrier.

BWI = Baltimore-Washington International Airport

DCA = National Airport

IAD = Dulles International Airport

Source: Official Airline Guide

[The following was also submitted for the record.]

PREPARED STATEMENT OF RAFAEL HERNANDEZ-COLON, GOVERNOR OF THE
COMMONWEALTH OF PUERTO RICO

I appreciate the opportunity to speak for the people of Puerto Rico in these hearings.

You have described your purpose as seeking an answer to two questions: whether the Civil Aeronautics Board's practices and procedures result in reasonably priced air transportation for the consumer and reasonable incentives for the airlines to provide service; and whether the public, and the airlines, are given a fair opportunity to present their views to the CAB before important decisions are made affecting their interests.

Both questions are important to all Americans who use and provide air service. Both are crucial to Puerto Rico—particularly today, when our links with the mainland may be significantly reduced by Pan Am's recent proposal to curtail services in the Boston, New York, Philadelphia and Baltimore markets on April 9th. While the Commonwealth has no wish to force Pan Am to serve Puerto Rico, Pan Am's action should not be at the expense of the airline competition and adequate service that is so essential to our island.

Air transportation is not a luxury for the people of Puerto Rico. It is a necessity. Commerce with the mainland—for purposes of business, employment, tourist travel, and the maintenance of family ties—depends on reliable, plentiful, and low cost air transportation. That in turn depends in large part on the existence of adequate competition. If the CAB's policies inhibit competition on the Puerto Rican routes, the island is hurt. If those policies foster competition, Puerto Rico benefits. It is about that simple.

Consider these facts. Nearly 40 percent of the annual traffic moving from major gateways on the mainland to Puerto Rico involves persons of Puerto Rican descent or background. The median income of Puerto Rican families living here on the mainland is about 60 percent of the national median family income. On the island, median family income is far below that of the poorest state. So if these families are to be able to travel to and from Puerto Rico and the mainland, air fares must be kept reasonably low.

Tourism continues to be vital to the Puerto Rico economy. The tourist industry generates nearly 5 percent of our income, and provides employment for 10 percent of our labor force. We must have plentiful low-cost service if that income and employment is to continue and grow. Maintaining sufficient air service is especially crucial during the current recession. Our unemployment rate in Puerto Rico is very high—17 percent—reflecting in part the recession in the mainland United States and its impact on our important tourism industry. If Puerto Rico is to hold its own during this economic crisis, visitors from the mainland must not be discouraged by inadequate air service. That requires competition.

The history of air transportation in the mainland-Puerto Rico markets provides a vivid demonstration of the importance of competition in developing a system that meets the public's needs. Before 1957, when Trans-Caribbean Airways (American Airlines' predecessor) was authorized to provide scheduled service between New York and San Juan, the two entrenched carriers in the market, Pan American and Eastern, provided modest service and emphasized first-class travel. This was so even though Pan American had served San Juan as far back as 1929, and Eastern had served New York-San Juan since 1951. When the CAB-certificated Trans-Caribbean, neither Pan American nor Eastern had been meeting peak period needs in the New York-San Juan market, and neither had made any significant effort to develop low-cost transportation alternatives.

The infusion of competition by a small but innovative airline, Trans-Caribbean, improved mainland-Puerto Rico air transportation tremendously. In order to meet TCA's aggressive competition, Pan American and Eastern had to make serious efforts to offer and promote reliable low-fare services for the first time. The traveling public responded. The number of passengers from the mainland to Puerto Rico increased even more dramatically than it had in the past and the thrift-class fare became the most widely used fare by far. Thrift class passengers went from 32 percent of the total market in 1958 to 94 percent during the year ended September 30, 1964. Although the thrift fare level has, of course, increased since 1958, it is still one of the lowest air fares for the distance in the United States. Nevertheless, the airlines earned reasonable profits during the

intervening years, and the New York-San Juan market grew into the largest long distance air travel market under CAB regulation. The Civil Aeronautics Board reaffirmed the benefits of this three-carrier competition in the New York-San Juan market in December, 1970, when it approved the American-Trans-Caribbean merger.

The relatively low fares have not been and should not be an impediment to profitable operations by three carriers. The New York-San Juan market is extremely dense, involving more passengers than other markets where the CAB has certificated three or more carriers. About 1.52 million passengers moved between New York and San Juan in fiscal 1974, compared to 1.12 million for New York-Los Angeles (3 carriers), 818,000 for New York-San Francisco (3 carriers) and 685,000 for Chicago-Los Angeles (4 carriers).

The market's size, distance (1,600 miles) and established travel patterns provide opportunities for the carriers to take maximum advantage of the efficiencies of modern aircraft types. The carriers are able to use highly efficient wide-bodied aircraft extensively. I am told that for markets of this distance, the costs of operating a Boeing 747 are at least 15 to 33 percent lower than those of narrow-bodied aircraft. Moreover, New York-San Juan passengers have demonstrated time and again a willingness to accept high load factors and less than elaborate amenities as a trade-off for relatively low fares. Though planes often fly half-empty in domestic markets, New York-San Juan flights have load factors in the 65-70 range, and many flights are sold out during peak periods (see appendix A).

Airlines other than Pan Am have earned reasonable profits on Puerto Rican services at the relatively low fares in effect (see appendixes B and C). While Pan Am reports huge losses for Puerto Rico services, its competitors are operating in the black. In the year ended June 30, 1974, American earned a \$2.8 million profit, and Eastern broke even. Pan Am showed a \$10.8 million loss (see appendix D). In the New York-San Juan market, American has told the CAB that it will earn a 10 percent return on investment under current fares. The Commonwealth has provided studies showing that American will earn in excess of the CAB's 12-percent standard rate of return in this market even without the revenues from a recent 8-percent fare increase.

These comparisons, moreover, understate the profit potential of Puerto Rico markets under current fare levels because American and Eastern are far from the most efficient airlines in the U.S. Were truly low-cost carriers like Delta, National, or Northwest operating in these markets, they would earn profits well above the CAB's standard rate of return at the current fare levels. Clearly, the difficulty does not lie in any of the unique characteristics of the Puerto Rican air transportation market or the fare level. The problem seems to rest in Pan Am's own operation.

A few comparisons of Pan Am's operating costs with those of its competitors in the very same markets provides a clear demonstration of the failure of Pan Am's management to control its operating costs. For approximately the same level of capacity production, Pan Am's total operating costs were 41 percent higher than American's for the year ended June 30, 1974. Excluding fuel, an element that was less controllable by airline managers during the period, Pan Am's operating costs per available ton mile were 144 percent of American's. The comparison is even more striking when one focuses on nonflight related expenses which, I am told, are highly influenced by individual management techniques. Pan Am's advertising and publicity costs were 372 percent of American's. What makes this so remarkable is that the total number of passengers Pan Am carried was only 122 percent of American's. While American was spending 89 cents per passenger on advertising and publicity, Pan Am spent \$2.70. Pan Am's passenger services expenses per revenue passenger mile were 166 percent of American's.

This inefficiency has a dramatic impact at the "bottom line" (see appendix F). In order for Pan Am to achieve the CAB's standard 12 percent rate of return on its Puerto Rico services, it would require a 45 percent increase over present fares. American, on the other hand, can achieve the standard rate of return at fares somewhat lower than those presently being charged. If the CAB were to grant an increase of the magnitude needed by Pan Am just to break even in New York-San Juan, American's rate of return on this route would be in excess of 25 percent.

Our purpose is not simply to attack Pan Am. Nor does the Commonwealth seek to force Pan Am out of, or compel it to stay in, Puerto Rican markets.

However, these markets require competitive services—at least 3 carriers in New York-San Juan, and 2 carriers in Boston and Philadelphia. If Pan Am is to be relieved of its service obligations because of its inability to operate profitably in the market, it should not be permitted to stand in the way of replacement service.

Unfortunately, Pan Am has structured its suspension proposal in a way that is calculated to foreclose any substitutions of a competitive carrier. It has not asked to have San Juan deleted from its certificate. Rather, it has requested a "permissive" service suspension under section 401(j) of the Federal Aviation Act for a period of 20 months. No new carrier without present East coast-Puerto Rico routes would apply for authority to substitute for Pan Am for a period of 20 months or possibly less—the period being totally dependent on Pan Am's whims. Representatives of 20 months. No rational carrier would apply for authority to substitute for Pan Am for a period of 20 months or possibly less—the period being totally dependent on Pan Am's whims. Representatives of the Commonwealth have been in touch with a number of other airlines. While several have expressed interest in replacing Pan Am, none would apply to the Board for replacement authority, considering the start-up expense involved, if the suspension period were 20 months or less. In order for a new carrier to enter the market, it must have assurance that it will be able to operate in the market indefinitely or for at least 3-5 years.

The Commonwealth of Puerto Rico is pursuing its remedies before the CAB. Puerto Rico is petitioning the CAB to suspend Pan Am's routes for three to five years, or permanently to delete Pan Am from these Puerto Rico routes, so that strong new carriers will be in a position to replace Pan Am in the markets. We are requesting that new applicants be allowed to replace Pan Am on April 9th without any gap in the service competition that is so important to Puerto Rico.

We are also asking the Board to require Pan Am to meet its obligations to its employees in Puerto Rico. Our information is that as many as 300 workers out of the 400 now employed by Pan Am in Puerto Rico may be laid off as a result of this suspension. These men and women all have more than six or seven years' service, in some cases much more. We think Pan Am should give them preference when it hires new workers on the Eastern seaboard, and that they should be entitled to severance pay. The savings that Pan Am will derive from ending service should be shared with its employees.

Mr. Chairman, I would respectfully suggest that Congress consider amending the Federal Aviation Act in such a way as to encourage competition when a carrier suspends operations on a route for economic reasons. Today, under section 401(j) of the Act, the Board is authorized to permit such temporary suspensions of service without public hearing "as may be in the public interest"—a very broad standard indeed. Should a carrier propose to suspend for a brief period, as Pan Am proposes here, the Board should consider whether the terms and duration of the suspension are such as to discourage applications for replacement service.

There is, to be sure, in the Act's declaration of policy (section 102d) a requirement that the Board consider as being in the public interest "competition to the extent necessary to assure the sound development of an air-transportation system properly adapted to the needs of the foreign and domestic commerce of the United States." But we are concerned that this broad injunction may not be applied to a determination as to whether a suspension of service will serve competition or not. I am not suggesting that the Board should compel a carrier to operate at a heavy loss, simply to provide competitive service. I am suggesting that the Board condition its approval of a suspension in such a way as to attract viable competition into the suspended market. Otherwise the effect of the suspension may be to discourage competition, and ultimately to raise fares.

Mr. Chairman, I recognize that one way of curing the lack of competition is to eliminate all entrance requirements—to permit any and all carriers who wish to serve a market to do so. I shall not comment on that, except to say that presently we live and operate under rules that do regulate entry into markets; that carriers will not attempt to serve areas which they believe are already fully served by other carriers; and that a new carrier would not seek to serve any market if it felt that Pan Am might return to it at any moment. So in this case, and under present regulatory law, the cause of competition is best advanced by requiring a suspending carrier to make way for another.

I appreciate the opportunity to present these views, Mr. Chairman. And I would hope that your concern for increased competition and low fares will be heard loudly and clearly by the Civil Aeronautics Board—both with regard to this proposed suspension, and in future proceedings before the Board.

NEW YORK - SAN JUAN MARKET

HISTORICAL INDUSTRY LOAD FACTORS

	1968	1/	1969	1/	1970	1/	1971	1/	1972	2/	1973	3/	Year 6/30/74	4/
TCA/AA	59.4%		61.6%		56.4%		54.4%		65.7%		64.4%		70.9%	
EA	68.5		62.1		68.9		58.2		60.7		61.4		64.2	
PA	70.8		65.6		69.0		55.2		59.1		58.7		62.0	5/
TOTAL	67.3		63.2		65.6		56.2		62.1		61.8		65.1	

-
- 1/ CAB Order 74-10-78, Appendix B.
 - 2/ AA-IR-103, p. 2, submitted in the CAB's docket 22908.
 - 3/ Monthly Information Response Submissions, CAB docket 22908, supra.
 - 4/ Monthly Information Response Submissions, CAB docket 22908, supra.
 - 5/ Year ended 9/30/74.

APPENDIX B

INCREASES IN LOWEST REGULAR NEW YORK -SAN JUAN FARES
AND
PROPOSED 1975 NEW YORK-SAN JUAN FARES

	<u>MIDWEEK</u>		<u>WEEKEND</u>	
	Season		Season	
	<u>Off-Peak</u>	<u>Peak</u>	<u>Off-Peak</u>	<u>Peak</u>
March 1966	45.00	45.00	45.00	45.00
March 1968	45.00	45.00	49.00	49.00
March 1969	51.00	51.00	55.00	55.00
January 1970	57.00	57.00	61.00	61.00
April 1972	62.00	62.00	67.00	67.00
May 1974	68.00	68.00	74.00	74.00
November 1974	73.00	73.00	80.00	80.00
Proposed 1975				
AA	81.00	107.00	86.00	113.00
EA	92.00	121.00	97.00	127.00
PA	83.00	88.00	88.00	93.00
Actual Increases				
1966-75 (%)	62	62	78	78
Proposed Additional Increase 1975 (%) by:				
AA	11.0	46.6	7.5	41.3
EA	26.0	65.8	21.3	58.8
PA	13.7	20.5	10.0	16.2

APPENDIX C

Comparison of New York-San Juan Fares
With Other Vacation Markets
February 1975

Round Trip Fares						
	NYC-SJU ^{1/}	CHI-SJU ^{1/}	NYC-NAS ^{2/}	NYC-MBJ ^{2/}	NYC-POS ^{2/}	LAX-HNL ³
Non-stop Mileage	3,194	4,144	2,194	3,088	4,408	5,112
Y		\$ 304	\$ 223	\$ 308	\$ 440	
YL						\$ 246
YH						278
YN		278				
KL	\$ 186					232
KH	196					262
KN MW	146					
KN WE	160					
1x 32 All Year		261				
Winter Ex 58 WE			192	256	345	
Winter Ex 59 MW			166	220	296	
7-10 Day HT			150	202	269	
5 Pax 3-14 Day						
GIT						
MW				194		
WE				216		
10 Pax 3-14 Affinity						
GIT				176		
10-35 Pax Group						
Off Days						231
Shoulder Days						246
Peak Days						263
Group 40 Pax						
Off Days						219
Shoulder Days						234
Peak Days						249
1/ Per ATC 53						
2/ Per ATC 54						
3/ Per ATP 194						

APPENDIX C

Comparison of New York-San Juan Yields
With Other Vacation Markets
February 1975

	Round Trip Yields					
	NYC-SJU	CHI SJU	NYC-NAS	NYC-MJB	NYC-POS	LAX-HNL
Non-Stop Mileage	3,194	4,144	2,194	3,088	4,408	5,112
Y		7.34¢	10.30¢	9.97¢	9.98¢	
YL						4.81¢
YH						5.44
YN		6.71				
KL	5.82¢					4.54
KH	6.14					5.13
KN MW	4.57					
KN WE	5.01					
Ex 32 All Year		6.30				
Winter Ex 58 WE			8.75	8.29	7.83	
Winter Ex 59 MW			7.57	7.12	6.72	
7-10 Day HT			6.84	6.54	6.10	
<u>15 Pax 3-14 Day GIT</u>						
MW				6.28		
WE				6.99		
<u>40 Pax 3-14 Affinity GIT</u>				5.70		
<u>10-35 Pax Group</u>						
Off Days						4.52
Shoulder Days						4.81
Peak Days						5.14
<u>Group 40 Pax</u>						
Off Days						4.28
Shoulder Days						4.58
Peak Days						4.87

APPENDIX D

AIRLINE UNADJUSTED RESULTS
MAINLAND U. S. - PUERTO RICO/ VIRGIN ISLANDS MARKETS
Year Ended June 30, 1974

	<u>American</u>	<u>Eastern</u>	<u>Pan Am</u>
Operating Profit (Loss)(\$)(000)	\$ 4,339	\$(6,718)	\$(23,113)
Return (\$)(000)	2,815	836	(10,791)
Rate of Return (%)	6.40	0.05	(17.65)

AIRLINE UNADJUSTED RESULTS
NEW YORK - SAN JUAN MARKET
Annualized 1974

Passenger Revenue (000)	\$55,036	\$51,570	\$27,713
Operating Profit/(Loss) (000)	5,351	3,415	(10,253)
Return (000)	3,194	3,295	(4,791)
Return on Investment (%)	9.9	5.4	(17.8)

Source: Mainland U. S. - Puerto Rico/Virgin Islands Fares Case,
Docket 24353: AA Item 9, EA Exhibit J, PA Appendix 9,
American Exhibit III, p. 1.

APPENDIX E

Pan American's Own Projections Indicate that Passenger Fare Increases Ranging from 27 to 67 Percent Would be Required at Pan American's High Expense and Investment Levels to Achieve a 12 Percent Rate of Return

Passenger Services \$ (000)	<u>Mainland-PR/VI Services</u>		
	<u>NYC-SJU</u>	<u>All Other</u>	<u>Total</u>
Investment (PA Item 10)	28,020	26,498	54,518
Return Needed @ 12%	3,362	3,180	6,542
less Interest (PA Item 10)	<u>1,172</u>	<u>1,109</u>	<u>2,281</u>
Net Income after taxes	2,190	2,071	4,261
Taxes @ 48%	<u>2,021</u>	<u>1,912</u>	<u>3,933</u>
Taxable Income Before tax	4,211	3,983	8,194
Add Interest	<u>1,172</u>	<u>1,109</u>	<u>2,281</u>
Operating Profit Required	5,383	5,092	10,475
Projected Operating Expense (PA Item 10)	<u>39,794</u>	<u>37,382</u>	<u>77,176</u>
Required Psgr. Revenue for 12% ROI	45,177	42,474	87,651
PA Projected Revenue with 8% Fare Increase (PA Item 10)	27,079	33,490	60,569
Required Fare Increase in addition to recent 8% to achieve a 12% ROI (%)	66.8	26.8	44.7

Source: Comments of the Commonwealth of Puerto Rico, Docket 24353, February 21, 1975, PR-Table 11.

APPENDIX F

American, Eastern, Pan American

Comparative Indirect Expense Levels Fiscal 1974 vs. Calendar 1971

		American	Eastern		Pan American	
		Unit Cost	Unit Cost	%AA	Unit Cost	%AA
<u>Passenger Service Unit Costs</u>						
<u>¢/RPM</u>	1971	0.543	0.520	96	0.831	153
	1974	0.549	0.608	111	0.913	166
<u>¢/ASM</u>	1971	0.299	0.311	104	0.466	156
	1974	0.376	0.384	102	0.538	143
<u>Aircraft Servicing</u>						
\$ per Avail. Ton Deptr	1971	17.54	20.12	115	33.61	192
	1974	17.16	23.08	134	27.34	159
<u>Traffic Servicing</u>						
\$ per Ton Enplaned	1971	46.57	43.48	93	100.66	216
	1974	55.89	63.60	113	105.87	189
¢/per RTM	1971	2.92	3.04	104	6.90	236
	1974	3.47	4.14	119	6.81	196
<u>Reservations and Sales</u>						
\$ per Ton Enplaned	1971	58.37	54.58	93	91.48	157
	1974	76.62	63.44	83	81.55	106
% of Operating Revenues	1971	9.90	9.59	97	16.85	170
	1974	10.93	9.41	86	15.23	139
<u>Advertising and Publicity</u>						
% Operating Revenues	1971	3.35	4.06	121	3.95	118
	1974	1.14	3.24	284	4.44	389
<u>General and Administrative</u>						
\$ per ton Enplaned	1971	28.47	28.14	99	32.28	113
	1974	27.93	32.95	118	41.83	150

Source: Comments of the Commonwealth of Puerto Rico,
Docket 24353, February 21, 1975, PR-Table 10.

[The following was also submitted for the record.]

EXTRACTS FROM ADDRESS TO THE WORLD CONFERENCE ON TOURISM AND AIR
TRANSPORT IN MANILA

Mr. Knut Hammariskjold,
Director General, International Air Transport Association

February 10, 1975.

The basic values and elements of any economic venture, especially of the magnitude of international air transportation and tourism, have undergone revolutionary changes during the last two years—one could also term it a revolution of international air transport—and the sooner we recognize fully that we now live in a new and different world, the better for all concerned. In other words, the fundamental concepts of international airline economics have changed. The change is continuing and it must be recognized that new approaches are needed to compensate for conditions in the new environment.

The time has come for sharing ideas in an international air transport system where problems are so complex that no suggestions for remedying them should go ignored. We must overcome the obstacles in our path, while continuing to provide economically viable and necessary scheduled and programmed services, both for individual and bulk travel, which are vital to keeping the political, social and economic wheels turning.

This implies reexamining some of the "sacred cows" standing in the way of progress. Examples of these include outmoded definitions, artificial market segregation and excess capacity. To obtain maximum benefits from existing resources, the challenge of these problems must be met. I am convinced that this is possible in the interest of both the public and the industry—if the artificial, man-made obstacles can be removed.

A realistic appraisal of the airlines' response to an unprecedented combination of adverse economic forces during the past year leads me to conclude that, given the necessary determination by all concerned to overcome existing man-made obstacles of all natures to new and imaginative solutions, air transport will overcome the present problems and face constructively the new world within which it has to provide its international public service.

In the world of today, common sense and public opinion cannot tolerate continued wastage of resources, no matter what form they take. The sooner we all realize this and adjust accordingly the better. Therefore maximum use has to be made of all existing resources, including utilization of aircraft in international traffic, thereby insuring the lowest possible bulk and individual fares to the public and, at the same time, maintaining satisfactory services necessary for the vital international commercial, economic and political relations. This objective obviously requires both imagination and the abandonment of dogmatic regulatory and legal concepts.

[The following was also submitted for the record.]



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February 11, 1975

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The Honorable Edward M. Kennedy, Chairman
Senate Administrative Practices and Procedure
Subcommittee - The Judiciary Committee
The United States Senate
Washington, D. C.

Dear Sir:

In view of the current interest of the Senate Administrative Practices and Procedure Subcommittee concerning the effectiveness of the policies, regulations and procedures of the Civil Aeronautics Board, we wish to submit certain views and findings of the Virginia Aviation Transportation and Airports Study Commission. The studies and activities of this Commission go back more than three years and we feel our conclusions represent both a seasoned collective judgment and a perspective which encompasses the varied interests concerned with aviation transportation at the state level. Although the following statements and conclusions are my own, I believe a majority of our Commission would agree with me.

The CAB does not concern itself with the systemic aspects of air transportation at either the national or state levels. Nevertheless, this is exactly where the greatest favorable effect upon the public interest could be fostered, where a federal regulatory function is vitally needed and where the present law clearly places a responsibility on the CAB. The Board rules on matters in this domain almost entirely as the air carriers wish and I believe in doing so ignores the public interest.

The Honorable Edward M. Kennedy

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February 11, 1975

Our frustrating experience in Virginia provides a clear example of the CAB's failure to consider systemic factors. The local and regional air transportation systems of the United States are dependent upon their connectivity with external points in the national and international systems. The quality and degree of such connectivity is, in turn, dependent upon the effective use as gateways of hub airports in the localities and regions. In the case of the Northern East Coast states, the CAB has encouraged the overwhelmingly predominant utilization of the New York hub airports. This has stunted the growth of other hub airports along the coast, including Boston, Philadelphia, Baltimore, Washington and Norfolk-Newport News. The underdevelopment of these airports has reduced their connectivity with the external points on the national and international systems and therefore reduced the traffic potential for local and regional systems. Thus regional systems remain as stunted as the gateways upon which they largely depend.

How gross a distortion has the CAB permitted? The "second morning truck delivery" market (i.e. a radius of about 600 miles) of Dulles International is greater than that of John F. Kennedy International at New York. Yet, because of discriminatory freight rates - and possibly other factors - JFK handles about ten times the Dulles freight business. The glut at JFK is inimical to good service, while an increase in volume at Dulles would tremendously improve the potential for air service to the smaller cities of Virginia and its nearby sister states. The same effect would benefit the New England and Pennsylvania regions through increasing the volume and schedules of their airports.

Despite the obvious "public interest" need for equal transatlantic freight rates, the CAB has overruled its own staff's recommendations and sided with the airlines.

If there is any situation where a common sense regulation is essential, it is in our national transportation systems. At the same time there are vital state interests in these same systems. It is unfortunate that the CAB has seldom given more than cursory acknowledgment to the states' interest nor, for that matter, to local and regional system requirements. In fact, the CAB seems to be entirely lacking in understanding the advantages of significance of transportation systems analysis.

We wish to make the opinions of Virginia known to your subcommittee and therefore would appreciate this communication being made a part of the record. We believe our sister states on the East Coast - with the possible exception of New York - agree with our views. If helpful, we shall be glad to furnish further details in respect to the views expressed above.

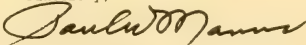
The Honorable Edward M. Kennedy

-2-

February 11, 1975

We hope your subcommittee will find the means to rectify the serious flaws we find in the policies of the CAB which have impeded the development of an effective, environmentally sound air transportation system in this country. As opposed to the present narrowly legalistic approach, both the air carriers and the public would benefit from one based on a systemic foundation. Above all, however, we believe ways should be found to encourage and assist states to develop their local and regional systems. We believe the clearly evident failure of the CAB to foster an optimum transportation system constitutes a total disregard of the public interest.

Sincerely,



Paul W. Manns

PWM/dp

Copies to: All Members of the Commission
Honorable Mills E. Godwin, Jr., Governor of Virginia
Honorable Wayne A. Whitham, Secretary of Transportation
and Public Safety

○

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